

# MICHIGAN FARMER

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### Farm Department.

Conducted by J. H. Brown, who lives on his farm at Climax, Mich., which is conducted as the Michigan Farmer Experiment Farm. All correspondence for this department should be sent to Climax, Mich.

#### THE EDITOR'S FARM NOTES.

##### CONSTRUCTION OF TOOL SHED.

Several brother farmers write us concerning the construction of a cheap and substantial shed. The foundation must be such that there shall be good drainage around the building, with no chance for water to affect the gravel floor inside.

A tool shed should render effective service in keeping all portions of every tool perfectly dry while stored inside—even the poles of all implements should be under shelter.

Friend S. S. Bailey, Kent Co., in reply to a foundation query, says:

In The Farmer of April 16 you say you must build some sort of a tool shed this spring, to be cheaply constructed. You say you have not yet decided whether to lay a stone foundation and erect a timber frame, or set poles in the ground. You ask advice of brother farmers.

My advice is don't build a stone foundation and erect a timber frame, and don't set poles. The latter are a nuisance, the former expensive.

##### CONCRETE FOUNDATION.

Dig a trench about one foot deep and six or eight inches wide. Put on the bottom a board or plank six or eight inches wide and level the same. Set studding on same six or eight inches wide and of desired length, about three feet apart.

Put plate on studding of plank two by six inches to support the rafters. Nail common boards on each side of studding two feet high from the bottom. Make a mortar of coarse clean gravel, using water lime (can use part common lime), and fill the spaces. Make the mortar quite thin and put in, as you fill up, all the stone, small and large, that will go in the spaces.

On the outside of the wall dig a trench about a foot deep and 18 inches from the wall and bank up. The trench should be so made that it will carry off the water from the eaves.

##### WARRANTED FOR 99 YEARS.

Such an arrangement gives you a foundation better than a stone wall and more lasting, costing only a trifle for time and a few common boards, no skilled labor being required, as any man can do the work that knows enough to mix mortar.

The studding being encased in mortar will not rot off, and such a foundation will last 99 years and longer if you wish it. (Make a note of this and see if I am not correct.)

Now put on a good roof and board up, and you have a tool shed that will be a credit to an editor of a farm paper, and you will take pride in showing it to your farmer friends and telling them of your cheap solid foundation.

The foundations for my silos are built in this way and other outbuildings. I am getting ready to build a tool shed and additional wagon shed after the plan proposed.

##### A LIGHT STONE WALL.

We are satisfied that your plan is all right for any location that has good natural drainage. But for the sloping ground where we intend plac-

ing our shed we have arranged for laying a narrow stone wall, digging the trench on both ends and back side about 12 or 15 inches deep.

##### SHALL USE PLANK FRAME.

Heavy timbers cost too much, and we shall use 2x4, 2x6 and 2x8 bill stuff entirely. We want to use the upper portion under the roof for storage of light tools, etc., and thus utilize every bit of space from the ground to the ridge pole.

##### SIZE AND ARRANGEMENT.

About 22x30 feet will suffice for present needs, with space left outside on the form to extend the length when necessary. The height from the top of the wall to the eaves will be ten feet.

Both roller and swing doors will be arranged on the front side, with spaces between the supporting posts to allow running any tool in and out without detaching any portion thereof.

##### THE BEST ROOF FOR SUCH BUILDINGS.

We doubt whether anything cheaper or more substantial can be found than a good, well laid shingle roof. It is possible that paper roofing may wear well under certain conditions if kept painted.

We have a heavy paper roof over the mill, attached to the barn, and it wears well, so far, having been in use nearly a year. But it does not seem to us that it can prove so durable as shingles.

A few days ago we were at the farm home of J. W. Helme, Jr., of Adrian. He has tried paper roofing, found it wanting, and now has several outbuildings covered with steel roofing. His roofing does not rust from the under side, because the old paper roofing is still underneath.

It seems to us that the covering of the rafters with matched boards, laying above this some kind of paper or felt, then covering with steel roofing, would be quite expensive.

If good cedar shingles are laid on a roof of, say one-third pitch, we doubt whether any better roofing material can be provided for the money expended, unless slate is used, and that is too costly for this locality.

##### WANTS A HOG HOLDER.

I would like to ask where and at what cost Mr. Brown's hog holder (cast iron, malleable) can be gotten?

Branch Co., Mich. M. H. SMITH.  
The malleable cast iron holder, of which we made a sketch last year,



cannot be procured of the manufacturers, to our knowledge. A blacksmith might make one from the sketch if he is an expert in designing and making from sketches.

We use a hardwood broom handle and a four-foot piece of three-eighths-inch rope to hold our hogs and pigs when necessary to ring their noses or castrate the boars.

We make a sketch showing the device at Fig. 1. The two holes at right end of broom handle are just large enough to let the rope slip freely. The end of the rope is knotted.

The loop C is made large enough to slip easily over the pig's nose while he is eating some corn that is given him for a "bait." The loop may take in the whole of the "bow" of his lordship, or just the "upper jaw," so called.

Just as soon as possible, draw up the slack rope in one hand, at D, and twist both handle and rope in both hands until the pig is fast. You can then hold the largest hog with one hand. This is the best device we ever saw for holding any kind of pig—not including the two-legged variety.

##### TWELVE YEARS' EXPERIENCE.

As it is rather out of season for shredded fodder, I do not want to enter into any controversy with Mr. Begg. Still we differ somewhat in opinion.

But as I have had twelve years' experience in feeding cut and shredded fodder, will give it in as few words as possible.

I bought a cutting box twelve years ago, and run it with two horsepower the most of the time until two years ago.

I heard and read so much about shredded fodder, thought I would try it. A neighbor and myself bought an old wheat separator, cut it off back of the cylinder, down to main frame, narrowed the carriers and put it under the cylinders, put on a gear and run it with eight horses.

The only difference between the cut and shredded feed is the latter handles the best, and am certain twenty-five per cent more of it is eaten than when fed whole, and I think it a fair estimate.

I do not wish to take up space, but would like to ask what difference there is in the feeding value of carrots, mangel wurzels and turnips. I raised and fed carrots last winter, but did not get the result expected.

I had been told they would color the butter when fed to cows, but one-half bushel to each cow a day failed to do it. Perhaps I did not feed enough. I did not see much difference between them and turnips, that I have fed for years.

G. E. MARSHALL.

Washtenaw Co., Mich.

Since we have commenced shredding we find it one advantage not spoken of before in our notes. When using the cutter, the knives had to be ground about every second time we had a job of cutting to do.

In the whole winter's job of shredding we did not need to sharpen the teeth once, and they are in good condition still. Upon the whole we prefer shredding to cutting, though it takes considerably more power to run the shredder.

##### FEEDING VALUE OF ROOTS.

The following table gives the dry matter and digestible food ingredients in 100 pounds each of carrots, mangel wurzels, turnips and potatoes:

	Dry Matter.	Protein.	Carbohy- drates.	Fat.
	Pounds	Pounds	Pounds	Pounds
Carrots	11.4	0.80	7.83	0.22
Mangel Wurzel.	9.1	1.03	5.65	0.11
Turnips	9.5	.81	6.46	0.11
Potatoes	21.1	1.27	15.59	...

We should prefer to feed potatoes to our cows, in limited quantities, for their succulence alone, as they are generally easier to grow and cultivate. The table shows little difference in the other roots, so far as protein and carbohydrates are concerned.

We should not feed turnips anyway.

As to the coloring matter, we prefer to put that into the cream when we churn, rather than depend on carrots.

For the Michigan Farmer.

#### POTATOES AND A POTATO PLANTER.

The finest thing in a potato field is a potato planter—not a boughten one, but an inexpensive home-made affair.

While this may be a little late in the season to benefit many potato growers, yet there are lots of late potatoes to plant, and if the readers of The Farmer who are growing potatoes on a small scale or for home use will try our way once, I assure them they will have no more backache caused by such work.

Those who make a practice of planting large crops would have no use for such a tool, for they already have planters drawn by horses that are superior in every way so far as rapid work and ease in operation is concerned. But in Southern Michigan potatoes are seldom grown for the market, and when they are the work is done either by plowing a furrow, dropping the seed and then floating the soil to a level which covers the seed very well. Or, as our ancestors used to do, mark each way, drop the seed and cover with a hoe.



There is an easier way than either of the above mentioned methods. The little drawing shows the whole affair. It is a round piece of hardwood timber, 2 1/4 inches in diameter, and about the length of a plunger corn planter. "A" shows a round pin driven into an inch hole in the main stick which is conveniently used as a handle.

The little dot at the lower end is another pin projecting about an inch just a quarter way around from the handle to place the foot on in case the ground is hard (as it occasionally is on all fields), and a place is made for the seed with little difficulty.

We used a grain sack thrown over our shoulders, as a person does when sowing grain broadcast, in which to carry the seed. Thus the seed was always in place and at the disposal of our left hand. In the first place our ground has to be marked each way; then with the planter in one hand and seed in the other the hole is made, seed dropped and covered with the foot.

If one was sure of time enough before a storm to plant his "patch" or field and roll it then there would be no use of covering the seed with the foot as the roller would do the work all right on mellow soil, and hard lumpy soil is not very good on which to grow a satisfactory potato crop.

This is our first year of growing potatoes for market, and whether we make a success of the work or not remains to be seen. Our soil may not be adapted to potatoes, but last year we allowed three acres of new ground, free from stumps, to lay idle for the



want of extra help of which I told you in the Mistakes and Failures special of January 1st, 1898. True to my word, we now have one-half of this planted to Early Ohio and shall plant the remainder to late varieties.

Should our soil prove to be as good as the average potato farms for the growing of potatoes, then we will make a practice of planting a small field each year the same as we do our other crops that are of greater importance or, at least, that we now think to be of more value.

A good yield of potatoes at a fair price brings in about as much cash per acre as any crop that can be grown, yet there are very few crops grown that are as liable to be worthless in a year of overproduction.

While this has to be taken into consideration as one of the chances, it is by no means the only disadvantage when compared with the keeping qualities of the grain and hay crops.

Grain and hay (except clover hay) are very injurious to the soil, while potatoes (in my estimation) stand almost at the head of all crops as a restorer of plant food. So while we have to take our chances on overproduction, which means ruinous selling prices on occasional years, yet it seems to me we should have no reason for complaint, as they make food for the stock and it is claimed the land is in better shape for wheat than a summer fallow which leads me to give a bit of experience on our farm.

The potatoes and corn were in the same field, and in the potatoes were a patch of watermelons. We can tell at a distance by the looks of the wheat where the melons were, the potatoes and corn.

The wheat on the corn ground is the poorest, that on potato ground second best, and the melon ground the best. The wheat was all sown at the same time. Thus the previous crop must make the present crop either good or poor. Which shall it be?

Hillsdale Co., Mich. ELIAS F. BROWN.  
(This tool is a good one, and for those who cannot afford to buy one of the hand planters advertised in The Farmer, we say make and use this device.)

But for us the "patented" hand planters beat anything else we ever saw. We have used them for five years; would not plant without them.—Ed.)

For The Michigan Farmer.

#### WORK ON THE FARM—YOUNG PIGS.

We are not having very good luck with our young pigs, although we have eight of the chicken-coop pens built with a railing on the back end and on each side.

These railings were put in to protect the pigs from being lain on by the sow. This is not a sure protection, although it may help. The most of our loss has been from the sows crushing them. Not one has been killed and eaten, so far, this spring, and I have not fed any fat pork either.

The sows had the run of a clover lot, and were fed sugar beets and bran. So they were in good physical condition and also in good flesh, but not fat.

It takes the "luck" all out of a fellow when he has his stakes set for a certain number of pigs and has large, fine litters reduced, one at a time, from thirteen down to six. Seven sows so far have thirty-four good, strong pigs that are too large to be killed by the sows. It remains to be seen what the other seven will bring forth.

#### STABLE FLOORS.

We are taking out our old stable floor and putting in stone floors. This stone floor will be put in about a foot deep and over a space 32x34 feet. Four box stalls for horses will be put in on one side, then an alley six feet wide, and then a cattle stable. Both horses and cattle can be fed from the alley.

The stone floor will be made as nearly level as may be, and then covered four or five inches deep with clay or leached ashes. Plank will be laid over this in the cattle stalls with a tight gutter.

I presume there has been lost hundreds of dollars worth of manure that has gone down through the cracks of this old floor and soaked into the ground. This waste must be stopped. It should have been stopped long ago.

This floor may be cemented sometime, but not now. By waiting, the floor will become settled and solid. It may be that the waste will be so small that cement won't be used. I think that in box stalls where plenty of bedding is used, there is not much waste, with a good clay floor.

I can't remember when we had a better spring to do work. All the oats were sown early and in good shape, and about the time they were all sown a good rain came that will bring them right up.

#### PLOWING CORN GROUND.

We commenced on Monday, the 18th of April, in our twenty-four-acre clover field to plow for corn. While the ground was dry and hard in some fields that were not covered with a mulch, this field was rather wet to plow well, owing to the heavy mulch made by the clover that went down last fall.

We always have plowed our corn ground from seven to eight inches deep, but this year we are not plowing over five and a half or six inches deep.

We shall float it down with our pole drag and then use a disc harrow, going both ways, lapping half way each time, and then float again when we will be ready for the marker. This is the way we have it planned out now, but something may happen that this plan may not be carried out. A long wet spell would, no doubt, cause us to put less work in fitting so not to make late planting.

#### OUR GARDEN, APRIL 20.

This has been made nearly two weeks, and our onions are nearly up. Peas have been sown nearly a week and are nearly up. Onions, peas, spinach, lettuce and beets have been sown in great abundance and of early and late varieties.

Long, straight rows are made so cultivation can be done with a horse. This garden business can be done much easier if a little system is used in putting it out, so a horse can be used.

This takes so much of the labor away that when farmers become accustomed to it I think they will have better gardens. Nothing adds so much to a table as plenty of good "garden truck."

Gratiot Co., Mich. I. N. COWDREY.  
(To make the railing most effective, in protecting the pigs, it should be about eight or nine inches from the floor and six to eight inches from the wall. The arrangement should be such that the little pigs may not be caught between the railing and the sow's back.)

Is the floor, arranged as you contemplate its construction, any better for the cattle, and is there any more of the liquid manure saved than we are now saving in our cow stable with a solid clay floor and water-tight manure gutter?

Considering cost of construction and efficiency in actual service for several years, we prefer the clay floor to any other, unless made of cement. Of course friend Cowdrey goes to this expense in laying stone, etc., expecting to lay down cement sometime, and wishes to secure a solid foundation.

We also are plowing our corn ground and it is the same field that produced corn last year. The knolls and poorer places are well covered with manure, and we are plowing just the same depth as last spring in order to turn up the old manure. The average depth is about seven inches.

We are forced to plant this field again this season, because of the failure of the clover seeding on the corn ground wheat of the previous season. We may not have such a fine yield of corn this season as we had last year, but if stable manure and good culture "pans out" as we anticipate, there will be no cause for regret.

We were the first to advocate the use of a pole drag, and illustrated our own tool in The Farmer several years ago. In traveling through the State we frequently meet brother farmers who made such a drag and thoroughly tested it.

Nearly all are pleased with the results from its use, though one or two have scolded us for advocating the use of such a machine. But for each one who condemns the tool we find scores who praise its simplicity, cheapness and practical utility.—Ed.)

For the Michigan Farmer.

#### ABOUT HARROWS.

In regard to the discussion in The Michigan Farmer about the spring tooth harrow, I think the experience of most farmers will be the same about its pulling up rubbish and failing to cut to pieces June grass sod.

Yet, what can we do better than to use it? Is there anything that will fit such fields better, and leave the spring tooth for use on fields where it works well?

Have you or any of the brother farmers had any experience with the coul-

ter bladed harrow? It seems to me the tool works on a principle that might overcome this difficulty.

I would like to hear the experience of others about this harrow, as I have never had an opportunity to judge of its merits or defects, as it is almost entirely unknown in this vicinity.

You speak of building a tool house. I have a plan that I followed in building a woodhouse a few years ago which did not cost very much.

I used round posts, set in stone and water lime cement. It has proved satisfactory, so far, and I will explain the plan which I followed if you think it worth while.

Jackson Co., Mich. CLAUDE SMITH.  
(The particular harrow to which you refer is an excellent tool for many purposes. We have used the tool on our farm for surface fitting and were well pleased with its work.)

Send us full particulars concerning your plan of constructing woodhouse. Where posts are used it seems to us that your scheme is all right.

For our tool house we think it better to have a foundation that will exclude water from running underneath, as moisture is bad for both wood and steel.—Ed.)

For the Michigan Farmer.

#### RYE, BUCKWHEAT AND CLOVER SEEDING.

The many discussions and experiences printed in The Farmer, in regard to the care of brood sows, rye culture, and seeding after different grain crops, have been interesting and instructive to a young farmer, like myself, and if he reads and considers them carefully I don't think he will go far astray.

In the issue of April 2d I noticed the inquiry of F. J. Groat, of St. Clair Co., about seeding clover after buckwheat. My father was always a buckwheat grower, and raised more or less every year, and I have had the benefit of his experience.

We tried seeding to clover after it many times on both high and low land, and the result was a failure every time. The clover always came up in fine shape and thrived until the hot, dry weather of August, and what didn't die then gave up its grip in winter.

Its roots seemed too short to reach moisture in a dry time, and on moist ground it let go and heaved out. Upon the whole, I think it is seed thrown away, and we have adopted a different plan.

Immediately after removing the buckwheat crop we go on with the grain drill and sow rye. If the ground is too hard we put the wheel cultivator ahead and drill lengthwise of the cultivator marks. The rye comes up quickly and the buckwheat self-seeds the next spring, and we turn the whole crop under while green.

There is considerable rye sown in this section for plowing under, and I have seen good crops of potatoes, bagas, buckwheat and winter wheat after the same, and on worn land.

Oakland Co., Mich. ELMER STARK.  
(Was it not the hot, dry weather that was more clearly responsible for the failure with your clover seeding, rather than the buckwheat?)

The rye plan is good, but it makes a delay of one more season in seeding down to clover.—Ed.)

For the Michigan Farmer.

#### MANURING WITH SUNSHINE.

The fertilizing power of summer sunshine is not fully appreciated by farmers. Sunlight striking a bare or fallow field, does not add to its productivity, neither does it improve the quality of stable manure exposed to its direct rays. Yet the sun is the original source of all terrestrial energy, of whatsoever kind. It is generally admitted that the food which growing plants get from what are called arable soils, is usually lacking in three elements. These three elements are phosphoric acid, potash, and nitrogen as solids or liquids. Nitrogen exists in inexhaustible quantities as a gas in the air we breathe. Potash and phosphates we must dig out of the rocks or buy of those who dig them.

Nitrogen exists all about us, and we only need to set traps to catch it. We can buy phosphoric acid and potash for from 4 to 5 cents a pound. For nitrogen in commercial fertilizer we have to pay from 15 to 18 cents a pound. Nitrogen is necessary for growing plants, but so is moisture and warmth. For certain crops such as early vegetables it is often profitable to provide moisture, heat and nitrogen

by artificial means, but for staple crops this policy would be ruinous.

We can draw upon the stock of nitrogen in the atmosphere by means of sunlight acting upon and vitalizing leguminous crops, such as clover, vetches and peas. All of these can be grown as "between crops" so as not to interfere with the regular crops. Clovers can be sown in the stubble of small grain, or even with the grain seed. Vetches and peas can be sown in standing corn at the last cultivation.

The selection of a crop to be used as a nitrogen trap depends largely upon the locality, soil, and system of rotation. For states South of the Ohio and Potomac rivers, the cowpea, crimson clover and sand-vetch are the three most satisfactory. For more Northern states red clover, Canada pea, and winter vetch promise most.

In general, any legume known to thrive upon the soil will be satisfactory as a nitrogen trap. When such a legume is once found and adopted, it should be continued until they have been grown upon the same field for several seasons—the longer the better. Rye, turnips, and other non-leguminous crops which are sometimes turned under, are of no value as nitrogen-gatherers.

All the legumes named, except sand-vetch, make valuable fodder, and their use as fodder does not detract from their value as fertilizers, if fed upon the farm and the resulting manure returned to the land.

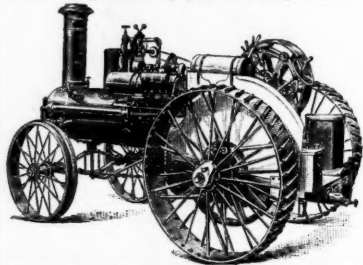
For soils too sandy to produce good clover or winter vetch, Blue and White Lupines and sand-vetch are recommended for all but the coldest parts of the United States. These latter three are worth less as fodder.

To secure the best results, these crops must be abundantly supplied with Phosphoric Acid and Potash food. From 100 to 200 lbs. of Muriate of Potash, and from 200 to 400 lbs. of Acid Phosphate per acre is a good application. Nitrogen or "Ammonia" is not needed. The purchased food given remains in the soil, if the green crop is turned under, for the next regular money crop, so we get double service from it and can afford to use it with a liberal hand. This is the best and only rational way to enrich both farm and farmer.

GERALD MCCARTHY.

#### Traction Engines for the Farm.

For nearly half a century the M. Rumely Co. of La Porte, Indiana, have been making machinery for the farmers, and every season has seen some improvements in the product of their factories. The traction engines manufactured by them stand at the head of their class in strength, beauty and general usefulness on the farm or highway. The public demands of this machinery that it have easy steaming qualities, simplicity, and



strength in all its parts. The very best steel must be used in the manufacture of the boiler, and the fire box must conserve the heat to the largest possible extent. These are the strong points of the Rumely traction engine. It is built of the best material and so designed as to be heavier where the hardest strain comes. By referring to the accompanying illustration it will be noticed that the slides, cross head, and all gearing are enclosed so as to make them absolutely dust proof. Engines manufactured by this company are from eight to twenty horse power, and are well made, simple and easily operated. A handsome illustrated catalog has been recently issued. Write for it.

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## Live Stock.

CONDUCTED BY ROBERT GIBBONS.

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Detroit, Mich.

### IT PAYS TO GRIND AND COOK GRAIN.

B. D. Lumsden, in Farm and Fire-side, makes the above statement and follows it with his reasons, in which he says:

In feeding animals, or plants, the more minutely the food is prepared for assimilation the better the results. Food for animals can be prepared for more ready assimilation by two processes—first, by grinding; second, by cooking.

For man all our grain used for food, except oats and cracked wheat, is ground and finely pulverized. Then, to make the products more readily assimilated and to afford the most nutriment, it is cooked.

So for plant food. The commercial fertilizers are finely ground and then treated with acids to make them more available for plant food. It would take years for bones, without mechanical aid, to become of service for plant food, and the phosphate rocks, without such treatment, would never give up their fertilizing ingredients.

In all of our farming operations, if we would follow nature more closely in the plants we cultivate and the stock we feed, we would find it pays. Grass is said to be the natural food of our cattle, sheep and horses, and the nearer we give our feeding material the succulent and easily digestible nature of grass the more benefit our stock will receive from it.

It follows, then, that the more minutely grain is prepared by grinding for stock the more it will benefit them, regardless of the cost. The loss in corn by grinding is the toll, one-eighth or 12 per cent. It has been demonstrated by actual measurement that the saving in grinding and cooking will amount to 25 or 30 per cent. Actual experience in feeding my hogs shows that they will consume less meal than corn and fatten faster. They will eat their slops much faster, then lie down to rest; and as rest and quiet are necessary conditions for hogs to fatten, they will fatten much faster.

Corn with most farmers is the grain most used. With only the difference of the toll between meal and corn it pays well to feed stock, especially hogs, on meal instead of corn.

Mr. Lumsden's arguments in favor of grinding grain for stock are partially true, but not altogether. Repeated trials at experiment stations have completely knocked out such theories, and invariably showed that the gain from grinding grain seldom or never equalled the cost. Where hogs, cattle and sheep are being fattened and it is necessary to push them hard for a short time, grinding and cooking grain has its advantages. But continuous feeding on ground grain of any description, such as corn, oats or barley, of either horses, cattle, sheep or hogs, is very liable to result in indigestion, the animals get off their feed, and it is always difficult to get them in good shape again. To avoid such trouble some feeders wet the meal and scatter it on the hay being fed. This compels the animals to masticate the meal with the hay, and prevents impaction of the stomach or intestines. Mr. Lumsden says rightly it is best to follow nature in feeding plants or stock; but did he ever see animals in a state of nature getting their feed ground, or cooking it? Does the wild hog start a fire and roast his acorns and nuts? Does any animal in a state of nature ever feed on ground or cooked rations? We never heard of one. These are man's devices to beat nature, and they are not always to be relied on. If you want healthy store and breeding stock let them masticate their food of every description. They can enjoy grinding their grain rations, and it will have the advantage of reaching their stomachs in the best possible condition for assimilation, being thoroughly mixed with the saliva which is the first, and a most important, step in digestion. Without it the ground grain is apt to lie dormant in the stomach, and the animals will soon be suffering from colics, impaction of

the stomach or bowels, or some other intestinal trouble, as the result of trying to beat nature.

The statement that 25 to 30 per cent. can be saved by grinding and cooking is so contrary to all tests ever made by experienced men that it argues Mr. Lumsden to be drawing upon his imagination for his facts. He certainly never procured them from actual tests.

For The Michigan Farmer.

### THE TAMWORTH HOG.

I have been studying up the "Tamworth Hog" question lately and have come to the conclusion that Secretary Wilson could distinguish himself for the benefit of the farmer along some other line better than trying to introduce this hog. It seems to me that farmers will be slow to give up those magnificent animals that have taken thirty years to breed up to their present standard, and go back to that lean, gaunt, long-legged, razor-backed hog that will take as much again of feed to put on the same amount of flesh as it does on our improved breeds. If we want bacon we can raise it by feeding the right kind of feed to our improved breeds, and if we want lard, we can have that, too. We don't get any more for a bacon hog when we have one than we do for a lard hog, and just so long as this is the case we will feed the hog that puts on the most weight with the least feed; and it don't make any difference whether it is fat or lean. When our buyers pay us more for lean hogs than fat ones, then if there is difference enough in the price, why of course, we will feed for lean. And this can be done on any of our improved breeds without going to England for an inferior hog and then commence breeding up again. The American farmer has been educated up to admire a fine looking hog, and he will be slow to take up with one that will just balance when you hold him up by the ears. I admire Secretary Wilson and his efforts to advance the interests of our farmers, but I am afraid that he has a hard job on hand when he tries to introduce the Tamworth hog to our farmers. I may be wrong in my opinion of the hog. I never saw one, but have read of them and have seen their pictures, and if I am any judge of a picture, I don't want any Tamworth hogs.

I. N. COWDREY.

### WHAT BRITISH COWS ARE DOING.

From Our Special English Correspondent.

It cannot be claimed that the results of the competitions which take place every year at one of our large dairy shows at the Agricultural hall in London, actually indicates what our cows are capable of performing in the production of milk and butter, but the trials do suggest something approximate. It is probable that there are many exhibitors who make strenuous efforts to obtain the best cows for both purposes with the object of winning the prize in these competitions, and that they fall from year to year to get beyond a certain standard of excellence, which standard is, we regret to say, beaten in America by the Jersey as a butter maker, and by the Dutch as a milk producer. This ought not to be, more especially with regard to the Shorthorn, which, if not so phenomenal a milker as the Dutch cow, is an animal whose all-round properties are superior to the Netherlands. We propose to refer especially to the Shorthorn inasmuch as its home is in the North, and in no country is it bred to greater perfection than in Yorkshire and at least two of the adjoining counties. There were 25 Shorthorn cows, all eligible for the milking trials, whereas 17 were entered for the butter tests. Now in the milking trials a cow must have calved ten days before the opening of the show. Points are given for the period since calving—and the longer that period the more points a cow receives—for the quantity of milk she produces, and for the richness of the quality of that milk. A cow therefore must obtain a large number of points in order to qualify her for a high position. It has often happened that the handsomest cows, those more closely resembling perfection in the Shorthorn, have been inferior at the pail, and that the deepest milkers have been the ugliest; but on this occasion the winning cow which took the President's Cup as a Shorthorn also took the first prize medal in the butter test, and the third prize in the milking trials. The animal winning the

Challenge Cup and the Lord Mayor's Cup in the milking trials obtained 143 points, having yielded in the two days 136 lbs. of milk, or more than 13 gallons, which contained an average of 3.39 per cent of fat in the mornings and 4.37 in the evenings; she beat the champion Shorthorn in the inspection class by 15 points for milk, but was beaten by 5 points for butter fat. On the other hand—and this is very curious and quite unusual—she beat the same cow, Galety, in points for "solids other than fat." To win in a milking trial, therefore, nothing is demanded in the way of form or blood, but everything is demanded in the way of quantity and quality of milk. The champion milker came from Lincolnshire; she was six years old, and her breeder is unknown.

Now it may be observed that although the points in every class are similarly arranged, one cow alone approached the first and second milking prize Shorthorns, these two cows having obtained 140.9 points; the other cow referred to was a Dutch in the cross-bred class, and gained 141.5 points, but 10 points were deducted from this total on account of the fact that her milk contained less than 3 per cent. of fat in the morning. The highest points obtained by a Jersey were 126, and yet this cow gave 97½ lbs. of milk, containing an average each day of 5.89 per cent of fat; the prize Guernsey obtained only 111 points, the prize Ayrshire 122 points, and the prize Red Poll 129 points, this animal, which gave 126 lbs. of milk in two days, also losing ten points because of the low quality of her milk in the morning. These facts all tend to exalt the Shorthorn, and it is worth remembering that, wherever the competition, the Shorthorn is almost invariably found to combine deep milking powers with a high average quality. She does not, certainly, approach the cows of the Channel Islands in the latter respect, but she certainly does not fall to the level of the Dutch. Shorthorn breeders can scarcely be aware of the fact that there is a demand for good-looking cows which are milkers of the highest type, and that such cows realize more money than the average breeder of pedigree cattle is able to obtain. Efforts have certainly been made to induce breeders to take greater pains in the production of milking properties, but there is little or no response, and for some unexplained cause there is an antagonism between pedigree and milk which is as unreasonable as it is uneconomical. If in past days a dairy was looked upon as an inferior department of the farm which could safely be left for the housewife, there is no reason why, now that we are more sensible and more enlightened, that little peculiarity should not be dispelled and milk regarded as the sine qua non.

Yorkshire, England. AGRICOLA.

### STOCK NOTES.

The Department of Agriculture advises that only young cattle be taken south from the north, owing to the danger from splenic, or Texas fever, which is far more virulent in the case of mature animals than younger ones.

The Kalamazoo County Poor Farm has purchased from W. E. Boyden, of Delhi Mills, a bull calf sired by Volunteer 101205, dam College Mysie, by Fennel Duke 2d 69731, and tracing to Imp. Mysie 36th, by Scotland's Pride (25100), bred by Amos Cruickshank. This is a fine specimen of a well bred young Shorthorn.

Both Levi B. Doud and Nelson Morris agree that the war ought not to make any material difference in our export cattle business. No American boat carries cattle. The American line vessels now chartered by the government carried about 1,000 beef carcasses per week. Mr. Doud says there has been no increase in live cattle insurance rates and he sees no reason why there should be any.—Chicago Drivers' Journal.

Anent the controversy over the question of feeding salt freely to hogs, A. D. Newman, of Clinton county, sends the following experience: "I am not an old gray-headed man, but I would like to say a word about feeding salt to hogs. I read Mr. Jamison's article and think he is nearer right than the old gray-haired man. My experience in feeding salt to hogs is costly. Last spring I had nine as nice fall pigs as anyone, and I thought I would salt them; so I mixed up a barrel of feed and put in about three pints of salt; the result was I put four of those pigs in the ground and the other five did not half fatten. A lit-

tle salt may do, but you can feed too much. Have kept hogs about ten years, and never had a sow eat a pig yet. Have never given a sow salt or salt meat.

Sales of Shorthorn cattle in the west this spring show a most gratifying improvement in values. A number of bulls have sold at from \$250 to \$500, and cows have sold still higher. It brings back old memories of this great breed of cattle to see the earnest competition among buyers for the choicest individuals. One thing seems pretty well established as the result of the past six or seven years, and that is that it is not only a question of breeding but of individual merits among buyers. Bates, and Cruickshank, and Booth blood sell equally well if the animals themselves are of choice quality.

AFTER shearing, the use of a first-class Dip is of great benefit to the flock, and the practice of regular dipping is consequently becoming very general. The best is usually the cheapest, and of the dips on the market none can show a better record than the famous Cooper Dip advertised in these columns. All patrons can obtain valuable book premium on application to Willm. Cooper & Nephews, Galveston, Texas.

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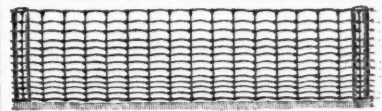
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## The Horse.

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### THE TROTTER AS A PARK AND CARRIAGE HORSE.

Now that the breeding season is at hand, and those with mares to breed are considering the class of stallions they should patronize, we give the views of Mr. C. F. Bates, President of the New York Coach and Cab Company, on the American trotter as a producer of park and carriage horses, which appeared some time ago in the Horseman:

"It is only within the last three or four years that a few breeders of trotting horses have begun to turn their attention to producing horses of the park or carriage type, yet this field always has been, is now and will doubtless continue to be, one of the safest and most profitable branches of the breeding industry. A high-class park horse, that can step high enough to win at the national horse show, will sell for just about as much money as one that can go fast enough to win in the grand circuit. The fact has been demonstrated time and again in the New York market.

"Not more than three years ago the belief was general that all of the high-steppers at the horse show were hackneys, and your dyed-in-the-wool devotees of trotting couldn't find words to express their contempt for that type of horse. I well remember what a stir was created just after the horse show of 1894, when a reporter came around to my office and learned that all my prize winners were well-bred trotters trimmed up in hackney style. The New York daily papers printed the story with scare headlines, just as though a miracle had come to pass, and the news was telegraphed all over the country by the Associated Press.

"A little further investigation brought out the fact that nine-tenths of all the horses of known breeding shown in the high-stepping classes at Madison Square Garden were trotting-bred horses, and from that time forward your trotting enthusiasts exhibited unlimited interest in this division of the horse show. Harry Hamlin, who had been winning prizes with some purchased horses of the park type in 1894, came down from Buffalo the next year with a bunch of dock-tailed trotters bred at Village farm, and beat the best horses in the show.

"Now that the possibilities of the trotting-bred horse as a park horse are widely known, Mr. Hamlin and some other up-to-date breeders of trotting stock have started out to make a specialty of producing this type of horse. I do not know of any branch of breeding where the reward of success would be greater or where the interest and pleasure of experiment would equal this new undertaking. Mr. Hamlin, I am told, is resorting to a cross with the French coach horse to get size. That is the combination of blood which produced his great horse Cogent, and it ought to be successful, but I am just enough of an American to want to see the native blood go it alone, and if I were a breeder I would stand by the trotting horse for both sides of my foundation stock.

"It might be difficult to find native trotting-bred horses possessing the size of the French coachers, but it could be done. I have a standard-bred trotting gelding now that is bigger than Cogent, and that will make quite as good a show horse. He is by Egbert, and has trotted a mile close to 2:20. No kind of foreign blood could improve him in size, quality, conformation or action, and when it comes to speed he could lose the best hackney or French coacher that ever was foaled.

"Don't let anyone tell you that speed is not essential in a carriage horse. All critical buyers want to see a good turn of speed, and if a horse cannot show it his market value drops. By this I do not mean extreme speed or speed hooked to a pneumatic sulky, but the reach and power that will enable a horse to pull two men in a heavy trap at a 3:00 gait without tearing himself to pieces. Too many trotting horses of to-day lack the substance to do this. They may have speed enough to cover a mile in 2:15 or better, in racing rig or on a parlor track, but when it comes to pulling

weight they can't live it out with a good, sturdy, substantial 2:40 horse."

Mr. Bates particularly referred to the Michigan stallion Junemont, 2:14, as having the size, substance, conformation and action that should be sought for in a sire of high class carriage and park horses. Junemont was by Fremont, 1565, dam Fanny Carey, by Jack Rosey, son of Vermont North Hawk; g. dam, Paulina by Don Juan, son of North of England. It is a peculiar pedigree—trotting blood, Morgan and thoroughbred, mixed together, and Junemont was a fine animal, with size, style and speed. But his descendants are unknown.

### WHAT IS REQUIRED IN THE BROOD MARE.

There is lots of good sense in the following extract on the points which should be looked for in the brood mare. It comes from a high authority:

In selecting mares which are to be used in the production of carriage and coach horses, several things must be borne in mind. The mares must be absolutely sound. Blemishes, such as wire cuts and other scars that are certainly the result of accident, may be passed over, but care should be exercised to see that the blemish was not primarily induced by some fault in the conformation.

Curbs, spavins, side bones, ring bones and the like must be rigorously excluded—such unsoundnesses come fast enough without trying to perpetuate them. Even though no unsoundness appears, if the formation is faulty and predisposed to weakness avoid the animal. For instance, a mare may not have a curb, and yet have a hock so formed that a curb will be sprung under comparatively slight strain. So with spavins and certain kind of hocks and ringbones, and certain kind of coronets, etc., etc.

The joints should be large, the bone strong. The knees should be broad, the tendons well defined, and the bone dainty in texture and covered with very fine hair. Bones that are thick but covered with coarse, wiry hair are necessarily soft, and their increased size does not make them as strong or desirable as those of finer, better quality. Trials performed at the Wisconsin State Experiment Station with the dynamometer proved that the bone of the thoroughbred would bear a much heavier strain, in proportion to its size, than the bone of a common work or draft horse.

Hence, the quality of the bone must be considered, as well as its size. Particularly in selecting our mares must we look well to this point, for we want them large, and if we do not keep a sharp lookout we may get one or two that have crosses of cold blood so close up as to cause the foals to be coarse and poorly suited to our purpose.

### HORSE GOSSIP.

London, England, is to have a national horse show May 28 to 31, at which over \$4,000 is to be awarded in prizes.

It turns out that Derby Princess, 2:08½, sold to go to Austria, only brought \$3,000, not \$6,000, as first announced.

The Lorillard-Beresford stable of American horses is winning a share of the races in England this spring. Two were won last week, one worth \$2,000.

At the fall trotting meeting in Vienna the Vienna Purse of \$2,000 is to be augmented with an \$800 premium if the winner beats the European mile record.

England had 35 races during the week which began April 11, at which the attendance is estimated to have averaged 10,000. It is readily seen why the thoroughbred horse does not deteriorate in that country. It pays to breed them of the very highest quality.

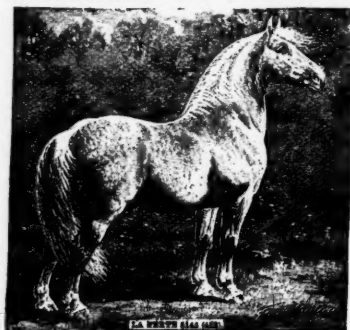
The race horse Hamburg, which is likely to be sent to England this season, comes from a noted family of thoroughbreds. His sire was Hanover, a great race horse and likely to prove a great sire; Hanover was by Hindoo, also a famous race horse, and he by Virgil, by Vandal, by imp. Glencoe, one of the greatest thoroughbreds ever imported into the United States. His blood was found in nearly every great race horse twenty years ago, and when crossed with that of Lexington, produced most of the sensational horses

then on the track. So Hamburg comes honestly by his speed and gameness, and should prove a sire of winners when his days of usefulness on the turf are over.

The government has issued orders to its agents to buy 1,500 small horses, 500 wagon mules and 500 pack mules. The order says that these animals are not for use in the army, so it is generally believed that they are to be sent to Cuba for the insurgents. The Cubans say that small wiry horses, such as were selected for street cars, do better in that country than larger ones. Those selected will probably weigh from 800 to 900 pounds. Mule owners have struck a harvest this season, as prices are fully 50 per cent higher than two months ago.

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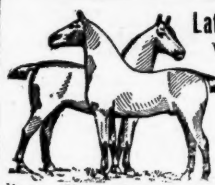
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### WOOL-GROWING IN THE SOUTH.

As showing the trend of agricultural development in the South we give the following paragraph from the editorial columns of a Louisiana paper:

"We never again expect to see cotton selling at 8 and 10 cents a pound. The time of such prices passed away when India and other foreign countries entered largely into its production. Since it is folly for agriculturists to try to make money in growing cotton at present low prices, it behooves them to look about for something else as a money-producing calling. The best paying thing we know of is wool-growing. There are many localities here where good grazing can be found the year round."

If the low price of cotton leads southern land-owners to change their system of agriculture, and grow more wool and mutton and less cotton, it will surely prove a blessing to many of the southern States. The sheep will regenerate their worn-out soils, and enable them to grow corn and grass as well as cotton, without impoverishing themselves by the wholesale purchase of commercial fertilizers. As the world grows more civilized and prosperous the demand for wool will increase, while cotton will be less and less called for. Wool furnishes the most garments for man, whether he lives in the tropics or in the frigid zone. Cotton clothing is either the sign of poverty or partial barbarism, while garments of wool are the badge of civilization and prosperity. No nation ever attained to greatness whose people were content with cotton clothing. It has always been a badge of servitude and ignorance. Year by year this land will require more wool, and its production must always be a paying business. The United States should have a hundred millions of sheep instead of thirty-seven millions. Many of the southern states present ideal conditions for the wool-grower. Tennessee, Georgia, Alabama, Virginia, Kentucky, and North Carolina, have large sections of country peculiarly adapted to sheep husbandry. When they are covered with flocks, and woolen mills are erected to manufacture their fleeces, then will southern agriculture begin to develop in a manner that will secure permanence and wealth to the farmers. All the South has to do is to call off her dogs, and start into the business at once. There is ample room for all, and a sure demand for the product at remunerative prices. Cotton-growing can be carried on to as great an extent as possible, but supplement it with wool and the combination will be a strong one.

### GOOD RETURNS FROM A SMALL FLOCK.

To The Editor of The Michigan Farmer.

One year ago in March I had fourteen ewes, nine of them old ewes and five were yearlings. The nine old ones raised me nine lambs—seven males and two females. The fourteen sheared eleven and a quarter pounds to the head, which sold for fifteen cents, except two fleeces, which sold for twelve cents per pound. These ewes are delaine sheep, and their spring lambs were delaine lambs. Ten of these ewes, seven old ones and three yearlings, dropped ten lambs in the month of December. Lost one ewe, which I valued at \$5. Sold one lamb for \$1. The other nine I sold the 6th day of April for \$3.41 each. I sold last fall the seven wether lambs for \$3.09 per head. The December lambs were half-blood Shropps. This I consider pretty good returns from delaine ewes.

Gratiot Co., Mich. A. L. SKINNER.  
As we figure the items given, Mr. Skinner received \$23.92 for wool, \$15.69 for lambs, and \$21.63 for the wethers, besides \$1 for the lamb of the dead ewe, a total of \$62.24, while he has two young ewes left to replace the one that died. The cash received, divided among the 14 in the original flock, would give a return of \$4.37 per head, leaving him the original number of ewes and one over. Certainly Mr. Skinner found his flock very profitable, as will any farmer who gives his sheep

good care. The manure from the flock is not counted in, but it will always be an important item to the careful farmer.—Ed. Farmer.)

### SHEEP SHEARING.

The first public shearing of a Sheep and Wool-Growers' Association was held at Battle Creek, April 9th, and drew out a large crowd of interested spectators, as well as a good exhibit of sheep of nearly all classes. The result of the shearing, as reported by Secretary Pearce, was as follows:

Name of Owner.	Name of Breeder.	Sex.	Name of Breed.	Name of Sire.	Label Number.	Age, years.	Weight of Carcass.	Days' Growth.	Length, inches.	Pounds.	Ounces.
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	325	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	326	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	327	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	328	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	329	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	330	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	331	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	332	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	333	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	334	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	335	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	336	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	337	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	338	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	339	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	340	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	341	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	342	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	343	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	344	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	345	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	346	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	347	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	348	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	349	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	350	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	351	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	352	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	353	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	354	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	355	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	356	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	357	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	358	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	359	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	360	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	361	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	362	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	363	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	364	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	365	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	366	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	367	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	368	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	369	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	370	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	371	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	372	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	373	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	374	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	375	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	376	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	377	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	378	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	379	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	380	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	381	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	382	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	383	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	384	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	385	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	386	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	387	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	388	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	389	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	390	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	391	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	392	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	393	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	394	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	395	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	396	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	397	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	398	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	399	2	32 1/2	331	3	11	10
W. H. Fisk	W. H. Fisk	Weth.	Merino	E. B. Welsh 287	400	2	32 1/2	331	3	11	10

### THE SKIRTING CLAUSE OF THE WOOL TARIFF.

The Portland (Oregon) Farmer and Stockman is evidently not satisfied with the wool schedule prepared by Mr. S. N. D. North and adopted by Mr. Dingley in his tariff bill. The "skirting" clause is what worries our contemporary, as it does every sheep-breeder and wool-grower who has given the subject a fair investigation. It says:

The Farmer and Stockman has again and again affirmed that the "skirting" clause swindle in our present tariff law robs the American wool grower out of five cents on every pound of wool grown in the United States. Not many people understand the workings of this "skirting" steal. We will try to make it clear, and in doing so, will prove that the loss amounts to a great deal more than five cents a pound.

First. The importer takes a 7 1/2-pound fleece (which is eligible at 11 cents a pound duty, or 82 1/2 cents), and cuts from the center, say, 2 1/2 pounds of the cleanest light wool, on which he pays 11 cents a pound duty, or 27 1/2 cents. He then bundles up the other five pounds in a way that he gets it in as carpet wool at 4 cents a pound duty, or 20 cents. Thus he gets the 2 1/2 pounds of clean, light wool in for 27 1/2 cents, and the other five pounds for 20 cents, paying 47 1/2 cents duty for the whole fleece, whereas he should have paid 82 1/2 cents, making 35 cents in manipulating the fleece. Thirty-five cents on 7 1/2 pounds of wool is as near 5 cents a pound as one cares to figure. Do not these figures make good our affirmation.

Second. But this is not all; this 2 1/2 pounds of light, clean wool shrinks less in scouring than average washed wool (which is dutiable at 22 cents a pound), and comes in direct competition with our washed wool.

Third. Nor is the above all the rascality, by any means; for the very moment this five pounds of skirtings, on which but four cents a pound duty was paid, gets within our borders, it is no longer carpet wool, but clothing wool, and comes in competition with our clothing wool.

Fourth. Still more proof. In 1896, our eastern Oregon wool growers received 6 cents a pound for their wool. In 1897 they received, we will say, 12 cents a pound. Why did they not get 17? The 6-cent free trade price, and 11 cents duty, make 17 cents.

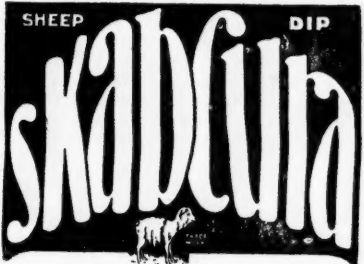
If it was not for this outrageous legislation, made in the interest of importers and eastern manufacturers, our wool growers would to-day be getting 17 cents a pound for their wool, in place of 12.

The Farmer and Stockman omits one point in its indictment of the iniquities of the present wool schedule. It is this: The duties on wools are based upon the duties levied upon the unwashed whole fleeces, and this light wool is imported as unwashed. The manufacturer is entitled to receive compensatory duties to protect his goods to the amount of three times the highest duty on unwashed wool. Thus the relative duty on skirted wools is not more than 8 cents per pound, at the

outside—probably not more than 7 cents. The compensatory duties to the manufacturer on a pound of his goods should therefore be 21 to 24 cents; but he is given 33 cents, or three times the duty on unwashed wool. It is a well established fact that the best Ohio washed wools shrink as much as unwashed skirted Australian wools, and yet washed wools are obliged to pay double the duty of unwashed. Skirted fleeces should certainly pay one-third more duty than unwashed—the relative difference in our markets between washed and unwashed wools.

But there is one thing that must be remembered in discussing the wool schedule, and wondering at its inequalities and contradictions, and that is, it was made up by men entirely unacquainted with the wool-growing industry, and naturally favorable to the interests of the manufacturer. Also that there was not a single representative, and only one senator, Mr. Mantle, who had any practical knowledge of the industry; that the Department of Agriculture did not have a man connected with it who knew any more about the business than the congressmen; and that the only "expert" called upon for information was Mr. S. N. D. North, lobbyist for the wool manufacturers, who acted as secretary for the committee. Is it any wonder the interests of the wool-grower were neglected? And it is largely their own fault. They elect lawyers and business men to represent them, who know nothing of, and care less for, their interests. Half a dozen well informed, practical wool-growers, in Congress, would have been worth millions of dollars to the sheep industry of the country. Until we have them, the wool schedule will continue to be a mass of contradictions, which only fulfills one-half or two-thirds of what it promises.

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### THE INHERITANCE TAX.

According to the Chicago Inter-Ocean the United States supreme court recently rendered a decision favorable to the principle of the inheritance tax. It seems that an inheritance tax law was passed in Illinois. A fight was expected and the legislature appropriated some \$60,000 for the purpose of carrying the law through the courts. The chief objection raised was that an inheritance tax is double taxation, taxing, after the death of the owner, property which has already paid its share of taxation. The principle announced by the United States supreme court is that an inheritance tax is not a tax on property, but a tax on the right and ability to transmit property.

This decision is entirely logical. It is worth noting because the question of an inheritance tax is sure to come up in the future discussion of the subject of taxation. It will be remembered that our own legislature in 1893 passed an inheritance tax law which was expected to yield a revenue of some \$200,000 per year. By some strange blunder it was provided that the income from the tax was to be paid

into the general fund. The law was declared unconstitutional, because of this provision. It was a specific tax, and should have gone to the primary school fund. The inference is that if it had been treated as a specific tax the law would have been constitutional. There can be no objection to an income from this source going to the primary school fund, for while it will not relieve the burden of State taxation, it will either improve the quality of our schools or relieve the burden of local taxation, which is much greater than that of State taxation.

An inheritance tax bill was introduced in 1895, but met with but little encouragement. There is no reason, however, why this form of taxation is not just, nor why it would not work in Michigan. Why not incorporate it in future tax legislation?

### WORTH REMEMBERING.

The ceremony described in the news note from Sparta Grange is well worth noting and practicing in the future by all Granges. Not only will the school-yards become beautiful by a custom of this sort (and this is a most woe-ful need in most cases), but the co-operation of Grange and school must prove mutually helpful.

### AUGUST PICNICS.

The Master of the National Grange, Hon. Aaron Jones, has promised to give from August 20 to August 28 inclusive, to Michigan, and for every one of these days, except Sunday, it is the desire of this office to have a grand outdoor picnic or festival, planned by as many different counties in the State, and that Bro. Jones be engaged as speaker. County Granges and picnic associations should note this and write me for full particulars.

It is none too early to make arrangements for such a day of profit and pleasure.

Applications for Bro. Jones must be made early, for only a portion of those who will need his services can be supplied, because of the time he can give to Michigan being so limited. The arranging of dates will need be left with this office, in order to fix the route so that all appointments can be met.

GEO. B. HORTON.

### GRANGE NEWS.

#### ONSTED GRANGE, NO. 279.

April 23 conferred first and second degrees on four candidates. At recess refreshments were served by some of our worthy sisters.

Lenawee Co. F. JENNIE NEWTON.

ASH CENTER GRANGE, NO. 471, met April 27 with good attendance. Will have an ice cream social Thursday evening, May 5, so as to dispose of our quilt and slumber robe.

Ed. G. J. Lauer, of Monroe, presented our Grange with a flag.

Monroe Co. E. H. PARISH.

LEONIDAS GRANGE, NO. 266, had a light attendance April 16. Bro. Smith, from Hudson, was present in the interest of a well-known wire fence company. Patrons should avail themselves of such opportunities, as co-operation in buying is one of the main elements of Grange organization.

St. Joseph Co. C. P. MONFORT.

CHARLOTTE GRANGE has moved into new quarters and is nicely located on the second floor instead of the third. We had a question box at our last meeting which brought out many interesting questions. Charlotte Grange will entertain Pomona Grange, April 30th.

Eaton Co. CHAS. HOFFNER.

BRADLEY GRANGE held an open meeting March 31. Bro. Root of Allegan gave an interesting talk on "Grange Benefits." At the last meeting had quite a discussion on the unwritten work of the Grange. We are going to work in earnest now. Will appoint a critic at the next meeting.

Allegan Co. A. B. FOX.

BANNER GRANGE, NO. 640, is neither dead nor asleep. Gave four third and fourth degrees at the last meeting, followed by a banquet. Lecturer gives out the program one week ahead and the names of those to take part; this is proving a success.

Ionia Co. COR.

SYLVAN GRANGE, NO. 393, Attendance at last meeting was good. The subject of "Free rural mail delivery" was discussed and approved of by nearly all who participated in the discussion. We expect to secure several new members in the near future. The library in the Grange has caused considerable interest, and all are well pleased with the books it contains.

Oceana Co. VICTOR MUNSON.

#### ALUMINA GRANGE, NO. 585.

April 23 the question discussed was, "Fertility of Soil and How Best to Retain It." Opinion was diversified, some advocating barnyard manure and level cultivation, while others claimed deep cultivation was by far the best. Our purchasing agent ordered a carload of salt. Have decided to build a barn.

Muskegon Co. MRS. DELL VIETS.

SILICA GRANGE, NO. 546. We meet every two weeks, and are in the most promising condition we have been in for seven years. We are nearly out of debt and have a good attendance. The members are buying some of their farm implements through the Grange and find a great saving; nearly one-half on binder twine, besides lots of other things.

Muskegon Co. CHAS. HORTON.

CADAMUS GRANGE. April 23 the librarian requested a voice of the Grange in regard to the benefit derived from the traveling library. It is an aid in creating a reading habit in our young people that will be a lasting benefit. Good fiction is better than poor fiction or no reading at all. It was urged upon the members to read more solid literature. A good program was rendered.

Lenawee Co. DECKIE E. TOBIAS.

NORTH BRANCH GRANGE, NO. 607. April 23 arranged for another contest. Had a question box and got some good discussions. General opinion was against drawing manure in the winter on account of losing the strength by washing off of the ground by rain. Received a traveling library some time ago, but not so much interest is taken in it as it was thought there would be.

Lapeer Co. H. S. B., Cor.

CHICKAMING GRANGE, NO. 382. April 9 had good attendance. Discussed the question, "What effect does foreign immigration have on the morals of our country?" Decided that a certain class of immigrants is a detriment.

April 23 we discussed the question, "What has Agriculture to do with the Prosperity of our Country?" Decided that agriculture is the basis of our prosperity.

Berrien Co. MARY H. CLARK, Cor.

IRONTON GRANGE, NO. 707, has been progressing finely. One of the features in our contest was procuring new members. Some of the contestants deserve great credit for this. Some twenty names have been added, which makes our Grange one of the best in our county. We have ordered seats and are prospering in every way. Our woman's work committee had a warm sugar social, which yielded nearly \$5.

Charlevoix Co. HATTIE C. ALLEN, Cor.

ROCKFORD GRANGE, NO. 110, gave the first degree to a class of seven on Saturday evening, April 23.

The Union Granges, that have been so pleasant and profitable during the winter season, closed by a "rouser" at Courtland on Saturday, April 9. It is the intention to hold them again next winter. It does us good to read the cheering words from all parts of the State, and we are truly thankful that the interest in our own Grange is increasing.

Kent Co. E. R. KEECH, Cor.

PORTLAND GRANGE, NO. 174. The interest of this Grange remains unabated. At our last meeting as many were present as could be accommodated with convenience. As the season of active Grange work is well advanced, the applications for membership are not so brisk as for the last three months, but there are many more that can be gathered in at a later date by a little well directed effort. At our first meeting in May there will be a feast for fourth degree members taken in in April.

Ionia Co. GEO. W. PEAK.

CAPITOL GRANGE, NO. 540,

enjoyed a treat the evening of April 27. On this occasion F. C. Reid, of Flagstaff, Arizona, assisted by Prof. Woodworth of the M. A. C., presented an illustrated lecture on the "Grand Canon of the Colorado and the Snake Dance of the Moqui Indians." The lecture was very instructive and pleasing to the large audience present, and should Mr. Reid consent to give it again in Lansing it will require the opera house to accommodate the people who will desire to attend.

Ingham Co. COR.

BELLEVUE GRANGE, NO. 138, met with Bro. F. E. Andrews April 20. Among other matters discussed were these: "What is there to add to what has previously been known about the corn crop, especially with reference to preparation of soil and selection of seed?" "What effect will the war now impending have on demand

and prices of farm products?" and "What has the Grange done for you? Has it made you a better and more thorough farmer?"

Voted to have monthly afternoon meetings on the second Wednesday of each month until autumn.

Calhoun Co. S. W. GIBSON.

LIBERTY GRANGE, NO. 391, is in a thriving condition. We have just closed a contest in which the married members were arranged against the unmarried ones. It was very nearly a tie, the unmarried side coming out a very few points ahead.

Five new members have recently been added, two are yet to take the third and fourth degrees, and four others are to report for initiation at our next meeting.

There has been some talk of the Grange taking up the study of parliamentary law.

Pomona Grange meets with us next month. Meeting every two weeks.

Gratiot Co. A. GRANGER.

SPARTA GRANGE. At our last meeting (with the consent of the Sparta High school) voted to unite with them in the observance of Arbor Day, both in the literary work and in planting of trees. Each grade in the school planted one or more trees in the school yard. At the proper time the pupils from that grade would encircle their tree and dedicate it to some renowned person by an appropriate quotation. One grade dedicated theirs to Frances E. Willard; another grade to William McKinley; etc. The Grange planted one and dedicated it to the Patrons of Husbandry.

Kent Co. MRS. JENNIE DART.

FOREST GRANGE, NO. 362,

reorganized April 12, after being dormant nearly two years, with 16 members on the roll and more promised for next meeting. Officers elected are: Master, Jesse Williams; overseer, Joseph Pearson; lecturer, Mrs. Martha Dickson; secy., George Davis. We were assisted in the installation by Worthy Master Fred Dickerson of Tallmadge Grange. Though the Grange has been dormant a few of the members have met from time to time waiting for a revival of the Grange spirit. The property and records have been carefully preserved and we are now nearly in good working order.

Meosota Co. MRS. E. J. MARTIN.

FAIRFIELD GRANGE, NO. 278,

was reorganized this spring by Bro. Horton and we have made a good start. There are at present 73 members and new ones are being taken in at nearly every meeting. Our meetings are very well attended and all seem to be interested in Grange work. Subscription papers are being circulated for raising money to build a hall. At present we are holding our meetings in a church.

At our last meeting, April 19, the articles of incorporation were completed and the plan of the new hall discussed; and at our last regular meeting, April 16, the question, "To what extent is the development of this country and its increase in wealth due to agricultural pursuits?" was briefly discussed.

S. WM. RAYMOND.

BAINBRIDGE GRANGE, NO. 80.

April 6 and 7 we entertained Pomona. Nearly all the Granges in the county were represented. The first day we served dinner to 260 and supper to a still larger number. Bro. Merry, of Fair Plain, gave a very interesting talk on the San Jose scale. The dairy question was also discussed by Worthy Master Seltz and others. The ladies think God speed the time when butter-making on the farm will be done away with and that we will have creamery butter for home use. Evening session was open to the public; the hall was so crowded there was not standing room.

The second day was devoted mostly to business, though a good program was rendered. April 9 55 members were present. Free text books were discussed and judges decided in favor of affirmative. Also, "Does it pay to hold county Grange?" Yes.

April 16 60 members were present. Discussed, "Would it pay to build a town high school building?" Yes. Then the young people who are not able to attend the city high schools could attend this school and receive a much better education than from the common district school.

We have adopted the plan of initiating first and third meetings of each month. Two took second degree.

Berrien Co. MRS. E. STICKNEY, Cor.

HOPKINS GRANGE, NO. 390,

entertained Allegan Co. Pomona Grange April 21, when their officers were installed by Worthy Master Robinson. A sumptuous dinner was served.



after which a fine program was rendered. An excellent paper was read by Sister Gilbert, of Moline, entitled, "One day's work in a farm house," which brought out an animated discussion, showing that much needless work is performed by the average housewife, and advocating the simplifying of work and so gain more time for rest, reading and recreation.

Bro. Smith, of Wayland, asked for the cause and remedy for pear crop falling before reaching maturity. Cause, trees being all of one variety blossoms failed to fertilize. In other conditions a few rusty nails driven into the body of the tree before blossoming had proved a successful remedy.

Several other questions were discussed, interspersed with music, recitations, etc. Immediately after closing the fifth degree was conferred on several.

Allegan Co. MRS. H. H. H., Cor. ALLEGAN COUNTY POMONA GRANGE met with Hopkins Grange April 21st, and had a very enthusiastic meeting. Seven Granges were represented: Allegan, Ganges, Watson, Bradley, Hopkins, Moline and Rural. Bro. L. C. Root, of Allegan, installed the officers, and several of the retiring officers gave good reports. After the address of welcome by Charles Burton, master of Hopkins, and response by F. W. Robinson, master of Ganges Grange, we listened to a splendid report of the "round-up" Farmers' Institute, at the Agricultural College, by T. G. Adams, of Bradley Grange. Discussion followed, all being well pleased with work of Farmers' Institutes, and hoping for a continuation of same.

A paper entitled, "One Day on the Farm," by Emma Gilbert, of Moline, brought out the discussion of the work of farmers' wives. All agreed that the ironing of any, except fine starched clothes, was entirely unnecessary, and should be discontinued.

Some directions about trimming and thinning peach trees, by F. W. Robinson. Ten new members were instructed in fifth degree. Next meeting to be held at Allegan Central Grange, July 21.

MRS. ORA BRAGG, Sec. PALMYRA GRANGE, NO. 212.

April 15, work was exemplified in the first and second degrees, after which Bro. Hill read a very able paper, subject, "Resolved, That international difficulties, as far as possible, should be settled by arbitration." Bro. Hill thought it was a disgrace to any civilized nation to engage in war. All differences might be settled by arbitration, if we only would. His thoughts were heartily seconded by Bro. Wallie Howland.

Bro. George Humphrey said he could not exactly agree, for he did not see how our present unpleasantness with Spain could be so settled, and that war was the only redress, so long as Spain would make no concessions.

Bro. William Bowerman said he could go to war now with a great deal better grace than he could in '61. That he thought the case fully as urgent now as at that time.

Bro. William Baldwin was of the opinion that Spain should be taught so severe a lesson that in the future she will leave our boats alone, and that hereafter we may have no fear of our property or subjects suffering at her hands.

Bro. M. T. Cole thought that we should arbitrate so far as possible, but that the present case would not admit of our doing so, and that we should all rally to the support of our flag and our honor.

The young people debated the question: "Resolved, That the boys have a harder time on the farm than the girls." Three boys were on the affirmative and three girls on the negative side of the question.

Lenawee Co. SMITH EVERETT.

#### DUTES OF THE LECTURER.

We must first take into consideration the fact that the Grange is the farmers' school of thought and development, and that the lecturer is the teacher who gives direction and assistance in this line of the work. It requires as much tact, judgment and discretion to become a successful lecturer as a successful school teacher.

The best teacher studies the capabilities, temperament, home surroundings and past opportunities of all the pupils as much as may be, and uses this knowledge as a partial guide in developing their intellectual powers. So the tactful lecturer will aim to know somewhat of the individual attainments and capabilities of the membership.

All members of the Grange cannot become writers of fine essays nor efficient public speakers, but every member can and should do something to assist in Grange work, and they should esteem it not only a duty but a privilege to do such work as they may be able, and after members get into this happy mood it is oftentimes a marvel to themselves and their friends to see what they can do. No one can limit the capabilities of what we call the human mind. Some members who cannot at first write or speak may be able to read or sing or answer such questions they may be skilled in some handiwork.

Possibly some members may not be able to do any of this work, but at the proper time they may be asked to assist in decorating the hall, or to bring to the meeting some product of the farm or the household, which would furnish a text for discussion; or they may be skilled in some handiwork on the farm or in the home, and an exhibition of the same with explanations as to utility and methods of construction, would be of more real value to the members than a score of set speeches on almost any topic that might be presented. The wide-awake energetic lecturer will find something for every member to do who seeks improvement.

ALPHA MESSER.

#### A SUGGESTION.

Editor Grange Department:

For some time the farmers have been seeking to obtain for themselves free postal delivery, and the Grange, ever foremost in aiding the tillers of the soil, has labored earnestly for this boon. The country folk wish a privilege so long enjoyed by their city friends—a privilege for which their money has helped to pay.

Now we are met by a demand from the postoffice department for an increase in box rent; said increase, however, applies only to open boxes, while the rent on lock boxes has been reduced, thus placing the burden on those the least able to bear it. Is this right? Is it justice? Many in this vicinity have answered these questions in the negative. Our Grange has discussed this matter thoroughly, and decided unanimously to discontinue the renting of boxes, and receive their mail in the general delivery.

Arrangements are being made to bring this to the attention of all Patrons throughout the land and suggest that united action be taken.

We should be a unit on a question of right and justice. Remember that when united action is taken by our Order it does not pass unheeded by. What will we do?

Fraternalty yours,

Paw Paw. A. M. GOULD.

#### THE FARMER OF THE FUTURE.

(Extracts from a paper read by E. E. Church before So. Boston Grange, Ionia Co.)

The successful farmer (and his wife) will, of course, belong to the Grange, with dues paid promptly. He will never forget the password, will obey its rules and by-laws, and profit by all its advantages. Also he must be wide-awake and up to date, educated, broad and liberal minded, and possess a good degree of common sense.

He will be educated, because to keep abreast of the times will require that he be able to understand his soil, to produce a paying crop of the kind he may wish to plant; and because he must do business in a business way. He must be broad, so that he may look at matters from an unbiased standpoint; liberal, so that he may do unto others as he would be done by. Then he must be prompt and painstaking. Prompt to do his work at the proper time. Painstaking, for work that is well done is, according to the old and true saying, "Twice done." He must be able to see and take advantage of circumstances as they appear. He must also employ all of the improved labor saving machines, both indoors and out, for if his wife is an up-to-date woman, and rides a "bike," she will have to have the labor-saving kitchen appliances to enable her to spare the necessary time for outdoor exercise.

You may wonder where this class of men and women is to come from. We answer, from the farms of to-day. The time is past when our brightest and best boys and girls rush to the towns and cities to sell their services to the merchant, lawyer, doctor, or manufacturer, as farming is beginning to be classed as a business, and the farmer a business man, not a moss-back. The

better education and business ability of the farmer are demanding and obtaining his proper position in the social world.

The solid thinking men of to-day respect the respectable farmer. So let us educate our children, that they may become respectable members of good society, and if they decide to live on the farm, they will be no less respected because of it.

## Veterinary Department.

CONDUCTED BY DR. W. C. FAIR.

Advice through this department is free to our subscribers. Each communication should state history and synopsis of the case fully; also name and address of the writer. The initials will only be given. When an answer is requested by mail it becomes private practice, and a fee of one dollar must accompany the letter.

Wind Galls.—An old horse has wind galls. They cause no lameness and are not very large. W. M., Adrian, Mich.—Apply tincture iodine once a day.

Lice on Cattle.—My young cattle are lousy. W. K., East Saginaw, Mich.—Apply one part zenoleum in twenty parts water once a day for a few days until the lice are dead.

Cough.—My driving horse has a cough. Does not appear sick and eats all right. W. K., Monroe Mich.—Give half an ounce fluid extract wild cherry in feed twice a day and one ounce powdered licorice twice a day.

Splint.—Four-year-old mare has a bunch on fore leg below knee. It is hard and on the bone. She is not lame. W. F., Hillsdale, Mich.—It is bad judgment to treat a splint that does not produce lameness. Leave it alone.

Sprain.—My horse went lame about three weeks ago. The trouble is in joint just above hoof. I have used liniment freely. W. D. C., Flint, Mich.—Apply caustic balsam to injured joint once a week or ten days. Give him rest.

Worms.—Young horse has worms and his coat is rough. H. O. W.—Give one dram powdered sulphate of iron, one dram ground gentian and half a dram nitrate potash twice a day for three or four weeks. Also give plenty salt in feed.

Ringbone.—I have a horse that limps in one fore leg. He is less lame after being driven a mile or two. I notice he has a bunch on pastern. H. A. G. Ruby City, Mich.—If he is not lame leave him alone. If lame, blister with caustic balsam once a week.

Congestion of Lungs.—My mare took sick after being driven six miles. Thought she was going to have colic. However, she did not; acted more like lung fever. I called a veterinarian. Discharged from nose, bloating and died. J. T. R., Pinckney, Mich.—Your mare died of congestion of lungs. I think your veterinarian treated her properly. Many similar cases will not yield to treatment.

Surfeit.—Eczema.—I have a pair of mares eight and ten years old that have pimples and a breaking out on body. They get in this condition every spring. Rub and bite themselves. L. S., Georgetown, Mich.—Your horses have been surfeited and afterwards took eczema. Apply one part oxide zinc to five parts lard. If the parts discharge apply salicylic acid once a day. Give one dram Fowler's solution arsenic three times a day in feed. A run on grass will do them good.

Stifle Lameness.—Have a filly that was stifled two months ago. Use liniment of vinegar, alcohol, turpentine and white of eggs. Stifle not having been put in place leg cannot be brought forward. Does not have any use of leg; not much swollen. D. F. C., Sears, Mich.—Stand her in a stall that is eight inches higher behind than in front. When she stands in that position her stifle joint will not dislocate. Tie her hind foot forward with a strap to her collar. The foot should not be allowed to go back any further than the standing position would place it. Blister stifle with caustic balsam once every ten days. If you will persevere in the above line of treatment I think you will produce good results.

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## Miscellaneous.

### THE BATTLEFIELD.

Once this soft turf, this rivulet's sands,  
Were trampled by a hurrying crowd,  
And fiery hearts and armed hands  
Encountered in the battle-cloud.

Ah, never shall the land forget  
How gushed the life blood of her brave,  
Gushed, warm with hope and courage yet,  
Upon the soil they fought to save.

Now all is calm and fresh and still;  
Alone the chirp of flitting bird,  
And talk of children on the hill,  
And bell of wandering kine, are heard.

No solemn host goes trailing by  
The black-mouthed gun and staggering  
wain;  
Men start not at the battle-cry—  
O, be it never heard again!

Soon rested those who fought; but thou  
Who mingled in the harder strife  
For truths which men receive not now,  
Thy warfare only ends with life.

A friendless warfare! lingering long  
Through weary day and weary year;  
A wild and many-weaponed throng  
Hang on thy front and flank and rear.

Yet nerve thy spirit to the proof,  
And blench not at thy chosen lot;  
The mid good may stand aloof,  
The sage may frown—yet faint thou not.

Nor heed the shaft too surely cast,  
The foul and hissing bolt of scorn;  
For with thy side shall dwell, at last,  
The victory of endurance born.

Truth, crushed to earth, shall rise again—  
The eternal years of God are hers;  
But error, wounded, writhes in pain,  
And dies among his worshippers.

Yea, though thou lie upon the dust,  
When they who helped thee flee in fear,  
Die full of hope and manly trust,  
Like those who fell in battle here!

Another hand thy sword shall wield,  
Another hand the standard wave,  
Till from the trumpet's mouth is pealed  
The blast of triumph o'er thy grave.  
—Bryant.

### A QUEER ENCOUNTER.

A heavy shower of rain had left me stranded in the ancient and sleepy city of Elcheater. The country roads, bad enough at the best of times, were so sloppy as to put bicycling out of the question. I knew nobody in the town, and as there is only one place of interest—the cathedral—I went there.

In doing this I believed I was spending an idle hour. As a matter of fact, I was unconsciously fulfilling the object for which I was probably brought into the world.

The building appeared to be empty, and I amused myself reading the tablets that recorded the lives of worthy people who existed generations ago. I found that the cathedral sheltered the bones of many people named Clutton. This was interesting, for my own name happens to be Clutton, and, though I have never troubled myself about family "trees," I knew that we came from the West of England. In other words, the knights and dames who lay in Elcheater Cathedral were in all probability my ancestors. I wished that they had had the foresight to leave me some of their property.

Wandering through the cloisters, I came across a living picture of much greater interest and beauty than the images of stone and iron lying around me.

It was a young lady who was sketching a corner of the building, and making a frantic attempt to do justice to the wonderful arches and quaint windows.

In order to get a peep at her face, I made a pretence of examining a monument close at hand. It was erected to the memory of "Sir Francis Clutton, 1153-1201." His legs were crossed at the knees, which signified he had fought in three crusades; and had it not been that some barbarous visitor had broken off the gentleman's nose, he would have made a most imposing figure.

I took the liberty of standing for a moment by her side, to see her work. "If you will excuse my saying so," I ventured, "you have drawn that arch wrong. It is out of perspective."

"I know it is," she answered, with a little moue. "But I can't get it right. Are you an artist?"

"Not exactly," I said. "But I know something of architectural drawing."

"I wish you would show me how to get the wretched thing in so that it doesn't seem to be standing on one leg!"

"With pleasure."

I took her place on the campstool, and on another piece of paper made a rough drawing of the corner which had puzzled her.

"What a number of people of the

name of Clutton are buried here!" I said, by way of opening the conversation.

"Oh, yes; they used to be a great family in days gone by," she said. "Henry VIII. took them away when he was reforming the church. The Cluttons didn't change their religion fast enough. Edgar Clutton was the last of them. But he deserved to be punished," she added. "He did a very shabby thing."

"What was that?" I inquired.

"He was betrothed to his cousin, Dorothy Clarence, and jilted her."

"And what became of Mistress Dorothy Clarence?"

"She went into a convent. They say she died of a broken heart, and soon afterward Sir Edgar was executed for high treason."

"Rather a severe punishment?" I suggested.

"Not at all," she said warmly. "He was a mean wretch to behave as he did! Since those days a Clutton has never owned an acre of land in Devonshire. And they will never get back to their position of land-owners unless"—

She stopped.

"Unless what?" I asked.

"Well, there is a ridiculous old legend, which has been handed down; but I don't suppose it will ever come true. It runs:

'My lord shall come to his own again  
When a Clutton squire weds a Clarence dame.'

"So the theory is that when a Clutton marries a Clarence, and so repairs the wickedness of Sir Edgar, then prosperity will return?"

"Yes; but I am afraid that will never happen now," she said, with a little sigh. "Nobody knows what has become of the Cluttons, and the Clarences are nearly extinct."

"It appears to me," I said, "that you are superstitious about the country legends."

"I am afraid I am," she said, laughing. "because so many have come true. But this one never will."

"Why not?"

"Because," she said, "I happen to be the last of the Clarences. I was named Dorothy, after the lady who died of a broken heart."

"Are you a Miss Clarence?" I asked, struck at the coincidence.

"But I am afraid I can't help those unfortunate Cluttons," she went on. "because I don't know one."

At this, I am afraid, I winked at the broken-nosed monument of Sir Francis.

"Besides," she continued, "even if I did, I couldn't give them back their property, because I haven't any money."

By this time my rough drawing was finished, and she was kind enough to say it was very clever.

"May I keep it?" she asked. "I should like to paste it in my scrap-book."

"By all means. Would you like me to sign my name?"

"Yes, please, and put the date."

I did as she told me, signing myself "Richard Clutton."

When she saw what I had written she went pale with astonishment.

"Are you really descended from those old monuments?" she said.

"Not from the monuments," I answered. "But I believe I am descended from that unfeeling brute who broke Miss Dorothy Clarence's heart."

Then she turned scarlet at some thought which struck her and looked uncomfortable, but I could not resist the opportunity of teasing her.

"There is no doubt that you will have to marry me," I said, "and so restore the Cluttons to their former glory."

"I don't see that," she said. "I—I don't believe in those old legends."

"I thought you said you did."

"Yes, I believe in some of them, but not this one. Besides, I am not going to marry any one. I have decided to be an old maid. I like old maids."

"So do I. But I like young maids better. I am afraid, Miss Clarence, destiny. You and I will have to fall in love with one another; so we must make the best of it."

By this time she had quite recovered her equanimity, and was prepared to treat the matter as a joke.

"It seems rather hard lines that I should be obliged to fall in love with you," she said, with a mischievous gleam in her eyes. "I am afraid you are not my ideal."

"Perhaps not," I admitted. "But, then, Dorothy, people never marry their ideals."

"I beg your pardon?" she said, raising her eyebrows with a dignified surprise.

"People don't marry their ideals," I repeated.

"People don't usually address strangers by their Christian name," she replied severely.

"Certainly not. But perhaps you forget that we are not strangers; we are cousins. You can't seriously expect me to address my own cousin as Miss Clarence?"

"Many thanks for your help with the sketch. It is time for me to go."

She packed up her drawing materials; but I noticed she did not offer to return my sketch, in spite of her indignation—she packed it away in her portfolio. However, that may have been an accident.

But I was not going to let her escape so easily.

"You will let me see you home, at any rate?" I said.

"I think not," she answered; "I live a long way off."

"So much the better; we can discuss family legends and other things."

"Besides, I am well known. If I am seen walking through the streets of Elcheater with a stranger everybody will want to know who you are."

"You will, of course, explain that my name is Clutton," I remarked, "and they will grasp the situation at once."

She bit her lips with vexation.

"Come," I said, "don't let us worry about destiny or anything else. I will walk with you as far as your house. You must in mercy permit that, for I don't know a soul in the town. Then, if you find an additional cousin such a nuisance, we will say goodbye for ever and a day. Will that do?"

"Yes," she said, rather doubtfully.

On our way through the town she pointed out the house where at one time a branch of the family used to live. It is now converted into a hair-dressing establishment—a somewhat inglorious falling off.

That evening Mr. Clarence called at the hotel where I was staying, and begged to make the acquaintance of a member of the family. I submitted gracefully, and we discussed the family tree and the family history until 2 o'clock in the morning.

I think few men have had a more difficult courtship than mine, for Miss Dorothy fought against the guidance of destiny with all her might. But I succeeded.

Curiously enough, the rest of the legend came true, for a distant relation left her a moderate fortune. The terms of her will ran: "I leave the sum to my kinswoman Dorothy Clutton, that the ancient prophecy may be fulfilled; and I beg that she will employ it as far as practicable in repurchasing the Clutton property."

And all this arose from a chance encounter in an old cathedral on a wet afternoon.—Answers.

### OUR NATIONAL WEAKNESS.

The European powers, though jealous of the rapid progress and great prosperity of the United States, are also aware of the thoroughly peaceful character of our people and our government. Their jealousy of us is a trifling matter when compared with their jealousy of one another. All that is necessary to save us from European interference is to know our own mind, to be less boisterous in talk, and to be more prompt and decisive in action. To justify one-fiftieth part of the talk we have done in this country, we ought long ago to have driven out the Spaniards and emancipated Cuba. It is not the sensational newspapers that have had a sole monopoly of the talking. Presidents, cabinets, diplomats, and above all Congress, have done their full share. The discussions of the Cuban question in the messages of President Cleveland and President McKinley have been of a nature which in any European country would have been promptly followed by the mobilization of troops and a declaration of war. From the moment when Mr. Cleveland made his famous intimation that we should have to interfere on high grounds of humanity if the Cuban war were not soon ended, a war between this country and Spain has been practically inevitable.—Review of Reviews for May.

When writing advertisements please mention Michigan Farmer.

Free—A Wonderful Shrub.—Cures Kidney and Bladder Diseases, Rheumatism, etc.



Mr. Jos. W. Whitten, Wolfboro, New Hampshire

DISORDERS of the Kidneys and Bladder cause BRIGHT'S DISEASE, RHEUMATISM, GRAVEL, PAIN IN THE BACK, FEMALE COMPLAINTS, URINARY DISORDERS, DROPSY, etc. For these diseases a POSITIVE SPECIFIC CURE is found in a new botanical discovery, the wonderful KAVA-KAVA SHRUB, called by botanists, the *piper methysticum*, from the Ganges river, East India. It has the extraordinary record of 1200 hospital cures in 30 days. It acts directly on the Kidneys and cures by draining out of the Blood the poisonous Uric Acid, Urates, Lithates, etc., which cause the diseased conditions.

Rev. John H. Watson, testifies in the New York World, that it saved him from the edge of the grave when dying of Kidney disease. The venerable Mr. Jos. Whitten, of Wolfboro, New Hampshire, at the age of eighty-five, gratefully writes of his cure of Dropsy, swelling of the feet, and Kidney and Bladder disease by the Kava-Kava Shrub. Many ladies also testify to its wonderful curative powers in disorders peculiar to womanhood.

That you may judge of the value of this Great Specific for yourself, we will send you one Large Case, by Mail FREE, only asking that when cured yourself you will recommend it to others. It is a *Sure Specific and cannot fail*. Address, The Church Kidney Cure Company, No. 409 Fourth Avenue, New York City. Mention this paper.

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Beats all Others.

As a skimmer, the Improved U. S. beats anything I ever tested.

W. I. POWERS, Mgr. Speedwell Farms.

Merest Trace of Butter-Fat.

ALBION, ME., Aug. 22, 1897.  
The Improved U. S. is a dandy. Its work is very near perfection, leaving but the merest trace of butter-fat in the skim-milk.

OTIS MEADER,  
Dairy Editor, Turf, Farm and Home.

Product Increased and Quality Improved.

MAPLE GROVE FARM,  
CUMBERLAND CENTRE, ME., Jan. 28, 1898.  
Since we have been using the Improved U. S. Separator, we are confident we have largely increased the product of our cows, besides making a better quality of butter.

FRED. P. BLANCHARD.

50 Per Cent. More with the U. S.

EAST SHOREHAM, VT., March 12, 1898.  
The Improved U. S. Separator skims to a trace, and puts the product of our dairy in such shape that we have realized 50 per cent. more from our cows this winter than ever before.

GEORGE THOMAS.

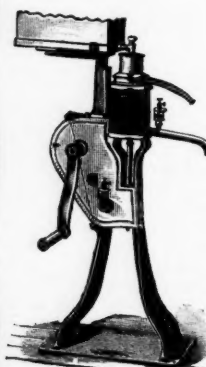
2 Quarts Cream from 10 Gallons Skimmed Milk.

DANVILLE, PA., March 13, 1898.  
We took 10 gallons of milk that had stood in pans 48 hours and had been skimmed, heated it to the proper temperature, and took 2 quarts of cream out of the cream in pans.

GEORGE B. KASE.

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## The Dairy.

We have a complete Dairy and Farm Creamery in constant operation on the Experiment Farm at Climax, Mich. This is personally conducted by J. H. Brown. All dairy correspondence should be sent to Climax, Mich.

### THE EDITOR'S DAIRY NOTES.

#### A GOOD STRAINING DEVICE.

The cut, Fig. 1, shows how a piece of cheese cloth is used, folded once or twice, and fastened over the top of each can, such as we use on our dairy farm.

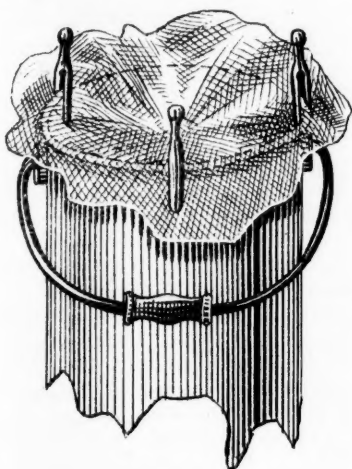


FIG. 1.

Fig. 2 shows another plan, a wire strainer and cheese cloth combined. Having a good strainer at hand, we are using the device shown at Fig. 2 at present.

We strain our milk twice before separating. A fine brass wire strainer fits over the feed pan of the cream separator, through which all the milk passes on its way to the separator bowl.

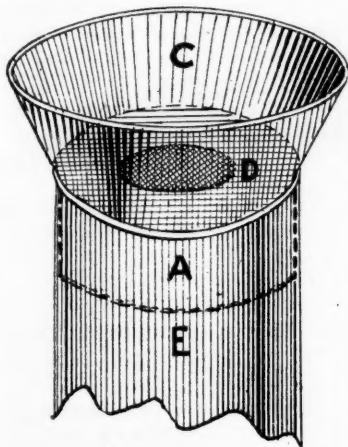


FIG. 2.

It pays to take pains to strain milk thoroughly, even when no foreign matter is visible, in a well-regulated dairy. And it is in just such dairies, where the greatest pains are taken, that the best butter is made. This shows that, if the farmer or dairyman takes the trouble to furnish pure milk, the rest of the treatment of the product will be generally satisfactory.

Fig. 2 shows an arrangement for fastening the cheese cloth underneath the wire strainer at A, by means of the hoop B.

D indicates location and proportional size of the fine brass wire screen in the bottom of the strainer C, which fits closely into the can E. This is exactly as our strainer is arranged at present, though we prefer to have the cheese cloth above the strainer, or as shown on the can at Fig. 1.

For the Michigan Farmer:

#### WHOSE FAULT IS IT?

In "Dairy Notes," page 308, the editor says: "Not one-half the butter made on Michigan farms is fit to eat." Had he made a like affirmation of all the northern states, we would heartily concur. We are glad to note that he says, in this connection: "This poor butter is made by farmers and farmers' wives."

Farmers in person have little to do with the process of making butter. In exceptional cases one is found who does the churning; but the approbrium of "poor butter" falls chiefly upon the farmer's wife.

That there are slovenly, unskillful buttermakers, goes without saying. But the actual number would fall far below the present estimate, were the

disadvantages which attend their work known and given due weight.

We believe that to make A No. 1 butter, from a large proportion of milk as it reaches the rural housewife, is an utter impossibility.

On hundreds and thousands of farms the dairy is only a secondary interest. It is given the time grudgingly taken from other farm work. Cows are selected with little or no reference to their butter-producing qualities. The effect of food upon the quality or quantity of the milk product scarcely receives consideration.

Cows are kept in close, unventilated, dark quarters, breathing stable exhalations. Are fed whatever chances to be most handy; the water supply more often a surface well which receives the drainage from the barnyard.

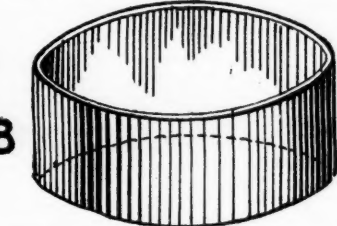
Milk stands unstrained in the barn a longer or shorter time, absorbing surrounding odors. The most scrupulous care, the most exquisite skill cannot evolve first-class butter from this milk.

You may strain and strain the milk as you will. The scent of the stable will hang 'round it still.

Not to exceed 15 per cent of the milk from the average farm dairy reaches the housewife's hands in its pristine purity; and yet upon her rests the imputation of making inferior butter. Some women have so long made butter from inferior and impure milk, their taste has become vitiated. They fail to detect the absence of the subtle aroma and delicate flavor which characterizes "gilt-edged" A No. 1 butter.

Others are aware that to a greater or lesser extent these conditions exist, but they are powerless to change or control them. They accept the situation and do the best they can.

Agitation has done much and will do more to place the blame upon the farmers, where it more largely belongs. Let us hope that the coming farmer will be more keenly alive to his individual dairy interest, and will



realize that his wife cannot make good butter unless furnished with good milk.

Well selected stock, regular, judicious and seasonable rations, cleanly surroundings and cleanly milkers, on behalf of the farmers of this country, would work a transformation for the better in the butter product which not all the painstaking and skill of the farmers' wives could effect.

Ohio. SARAH E. WILCOX.  
(Mrs. Wilcox is correct in placing much of the blame on some farmers who furnish their wives the milk from which the butter is made.

But during the coming hot weather season more poor butter will be made than during the past winter. In this case, the milk will be generally furnished to the housewife in fairly good condition.

But there are too many farmers who persist in letting the cans or pails of milk stand in the stable or barn until the remainder of the chores are completed. This is a bad practice at any time of the year, and especially so in warm weather.

Milk should be aerated and cooled down immediately after milking, no matter for what use it is intended. The managers of creameries have more trouble with their patrons from this cause than any other.—Ed.)

#### DAIRY INSPECTION IN MICHIGAN.

It may be that but a small number of The Farmer readers know that this work is being carried on very thoroughly throughout this State.

J. B. Barron, State milk inspector, furnishes at the end of each month a list of farms and dairies visited by him in his regular trips. The owner's name and residence is given, the condition of his herd and surrounding sanitary conditions.

Following is an extract from a late issue of the Monthly Bulletin issued by Dairy and Food Commissioner Grosvenor:

"Cows generally unclean. Stables generally clean. Ventilation generally good. Sanitary conditions generally poor.

"Number of tests of milk made 41, of

which 39 were above, one below, and one standard. Two were feeding garbage and refuse; 11 were feeding beer malt.

"The feeding of swill, brewery slops, dry ripe corn husks, straw and other food that has little or no sustenance left in it for nourishment and warmth will eventually and surely lead to impoverished animals, milk poor in per cent of solids, and consequently high in per cent of water; skip troubles, falling out of hair from the tail, scurvy, and susceptibility to tuberculosis, and other dangerous diseases. The law prohibits the sale of milk produced from any cow fed upon the refuse of a distillery, or of a brewery, garbage, swill, or upon any substance deleterious to the quality of the milk.

#### THE LAW OF IT.

"The Michigan laws provide that the milk which is impure, unwholesome or adulterated, or from cows which are diseased, or fed upon the refuse of a distillery, or of a brewery, or upon any substance deleterious to the quality of the milk; such as garbage, swill or any substance in a state of fermentation or putrefaction, or from cows kept in connection with family in which there is infectious disease is prohibited. Milk must contain not less than 3 per cent fat, and 12½ per cent solids. Milk from which cream has been removed must be labeled as skim milk.

"The penalty for the violation of this law is a fine of not less than \$100 nor more than \$500, or imprisonment in the county jail of not less than 30 days nor more than 90 days, or both fine and imprisonment."

#### DAIRYING.

##### A FEW THOUGHTS FROM A PRACTICAL DAIRY.

There seems to be a widespread notion that "farmers' butter" can not equal in quality the product of the creamery. Go to any country store and ask the price of butter and you will be told that "creamery" is worth so much while farmers' butter is at least two cents, and often five cents or more lower. The cause of this discrepancy is largely due to a lack of uniformity, not only in the product of neighboring farms, but several samples of butter from the same place.

Instead of the dairyman producing butter inferior to "creamery," or at least that lacks the uniformity of the creamery product, it is within his power to excel the creamery in producing butter of uniformly superior grade.

The truth of this statement becomes the more readily apparent if we take into consideration two things.

First: The milk received at a creamery comes from many sources and has been subjected to nearly as many different conditions. It is of varying degrees of freshness, or in some cases of staleness, for many smaller patrons deliver their milk but once in two days. It has also of necessity lost much of its animal heat, and milk is never creamed to better advantage than when first drawn.

Second:—The dairyman who is also his own butter-maker has within his control every condition influencing the quality of his product, and if he is keenly alive to his own interests he will allow no portion of this advantage to be lost to him. Care will be exercised that the milk shall not become tainted from rank foods given at unsuitable times. The stables will be properly ventilated and cleaned, and the cow well brushed off, and what is a matter of not the least importance in the production of uniform butter of first quality, provision will also be made for creaming the milk while warm and sweet.

In this last named factor lies the one great advantage of "creamery" over farmers' butter. For by the use of the separator employed in butter

factories for creaming the milk, not only is the cream secured in its best estate, but much of the fifth and foreign substances are removed. Some separators also thoroughly aerate the milk from which the odors and taints of the rank foods are thus driven off. These advantages have been enjoyed only by the creameries until within a few years, but there are now reliable hand power cream separators to be had which do quite as good work as the large machine, and it is only necessary to observe ordinary care that an honestly built separator is selected.

My own experience is confined to the Sharples Farm Separator made at West Chester, Pa., and it has proven a most satisfactory machine indeed. It is very simple, easily cared for and turns as readily as a grain fan. And the cream—well I never saw such cream from any other source; and I am perfectly content to let the pigs have what cream is left in the skim-milk, but some corn meal will be needed with it to fatten them. Among other advantages a separator offers is a great saving of time, which is a matter of special importance in the busy season.

One farmer we know of feeds his warm skimmed milk during the winter to his cows, and says he is satisfied it saves him about twenty per cent of other feed. I mention this because ordinarily the warm skimmed milk is thought of only as a first-class food for calves and pigs.

Another thing that keeps some farmers from realizing as much as they should for their butter is that they have become so accustomed to their own make that they do not appreciate the fact that the market may demand something different. The peculiarities of their method of handling the milk, cream and butter is stamped indelibly upon the product of their dairies, and they themselves, from having eaten this product for years, have become so entirely used to this home bred flavor that it stands for highest quality with them, and they are honestly surprised that it is not equally appreciated by everyone else.

That, for profit, no other branch of farming can approach dairying is a well recognized fact. It is necessary, however, in order to attain generous success in this department, to apply to it business principles just as must be in any mercantile pursuit, in other words to produce the best possible article at the least possible expense.

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Increase quality and quantity of milk 25 per cent. It is absolutely the best antiseptic known. Quarts 50c.; 1-gallon can \$1.25. Agents wanted. Exclusive territory given. Address:

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## Wealth

and fame come from butter with a name and reputation. The only salt that is altogether sure to improve butter is the specially prepared, flaky

## DIAMOND Crystal Salt.

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**WANTED NOW. AGENTS AT ONCE** to sell **Sash Locks** and **Door Holders**. Sample Sash Lock free for 2-cent postage; better than weights; burglar proof. \$10.00 a day. Write quick. Address **BROHARD & CO., Dept. 111 Philadelphia, Pa.**



FIG. 1.

## The Differences between Cream Separators

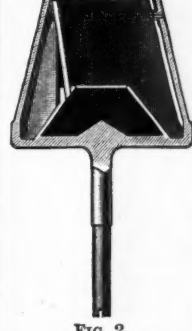


FIG. 2.

The cut on the left (Fig. 1) is that of a De Laval "Baby" separator bowl. It is of the improved "Alpha" disc type, which protecting patents prevent the use of in any other machine. It subjects the milk to centrifugal force in *thirty thin layers*. In consequence it has an actual capacity of 750 lbs. per hour, at a speed of 6,000 rev., and recovers 99 per cent. of the butter-fat in the milk. It is mounted within the finest operating machinery years of experience and the best of everything can produce.

The cut on the right (Fig. 2) is that of a typical "hollow" form of separator bowl. It is of the *patent expired* type the De Laval Company used up to five years ago and which its imitators use to-day. It subjects the milk to centrifugal force in *solid bulk*. It has a claimed capacity of 300 lbs. per hour, at a speed of 8,000 rev., and recovers 95 per cent. of the butter-fat in the milk. It is made cheaply, to sell cheaply.

Compare the relative size, capacity, speed and results. Are you going to put your money, your labor, and your business success into a separator? Can you see the difference—to you? If you would learn of still further differences in cream separators, send for new "Dairy" catalogue No. 268.

## THE DE LAVAL SEPARATOR CO.

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RANDOLPH & CANAL STS.  
CHICAGO.

General Offices:  
74 CORTLANDT STREET,  
NEW YORK.

Branch Offices:  
1102 ARCH STREET,  
PHILADELPHIA.



# THE MICHIGAN FARMER

—AND—  
State Journal of Agriculture.

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No deviation from above rates.

DETROIT, SATURDAY, MAY 7, 1898.

This paper is entered at the Detroit Postoffice as second class matter.

## FOR SUBSCRIBERS OF THE FARMER.

### Grand Harvest Excursion.

The second annual excursion for readers of the The Michigan Farmer will leave Detroit on Monday, August 22d, at 10:30 p. m., arriving at the entrance to Lake Huron early Tuesday morning. All day Tuesday will be passed on Lake Huron, stops being made at Port Huron, Sand Beach and Alpena, reaching Cheboygan Wednesday morning and crossing the Straits for beautiful and historic Mackinaw Island. From this point side trips may be taken to St. Ignace, the Snow Islands, Marquette and Sault Ste. Marie on Lake Superior, and to Burr Lake, Crooked Lake, and Petoskey on Lake Michigan. Tickets are good for ten days, giving ample time to visit the points named. The trip to the "Soo" can be made either by rail or boat, and that point is especially worth a visit to see the immense locks in the "Soo" canal, through which passes the great traffic of Lake Superior.

Returning excursionists will pass down the beautiful St. Clair River, the government canal, Lake St. Clair and the Detroit River by daylight. This is one of the most delightful features of the excursion.

For this excursion we have chartered the steamer City of Alpena, of the Detroit and Cleveland Steam Navigation Co., and the state rooms will be all available for excursionists. On account of the advertising given this line last season, as well as the route over which its handsome and commodious steamships ply, the company have generously made a very low rate for this excursion, one which will make it the cheapest of the season over the route indicated. The steamer Alpena is one of the finest, fastest, and most elegantly fitted on the great lakes, with beds, meals, and conveniences equal to first-class hotels, and nothing will be left undone by the management of the line and the officials to make everything pleasant and enjoyable to excursionists.

Coming at a season of the year when the harvest has been gathered, and a few weeks of leisure can be enjoyed before fall work begins; when the weather is nearly certain to be very warm and enervating, excursion-

ists will thoroughly enjoy the bracing air and cool breezes for which the Straits of Mackinaw and the north shores of Lake Huron are deservedly famous, and come back freshened and rejuvenated for the active business of the fall months on the farm. Those who wish to avail themselves of this delightful and very cheap trip, with the companionship of friends and neighbors, should write at once for full details, which will be sent promptly upon application. This offer is only extended to readers of The Farmer and their families, and we should like to hear from them as early as possible.

### CORN OR WHEAT FOR EXPORT.

The Corn Convention, which met in Chicago February 16th, to take into consideration the means necessary to bring about a wider consumption of corn as human food, organized a "maize propaganda" for this purpose. That body has issued a circular explaining the aims and objects of the organization, which are "to permanently and legitimately advance the price of America's greatest crop by promoting a larger use of Indian corn at home and abroad." This circular also says that "coming changes in dietary habits of the world make the present an opportune time to advertise abroad the virtue and relative cheapness of corn as food." We have previously referred to this matter, and questioned the value to American farmers of extending the exports of corn at the expense of wheat, or wheat flour. The more we have considered the subject the stronger it becomes our opinion that the proposed scheme will not only prove a failure, but that its success would be a hard blow to American agriculture. Certainly the wheat-growing states, and by that term we mean those which produce wheat beyond their own requirements, which surplus must be sent abroad to find a market, will not be benefited. Then out stock-raisers and feeders would have their business greatly injured if this exported corn was used in stock feeding abroad, as is certainly would be. Then the corn-grower would be injured by shipping his product abroad instead of feeding it to stock on his farm, and thus maintaining the fertility of his soil. The dairyman and stock-feeder would be injured by the loss of a large part of the by-products of wheat now available to them through the immense amount of wheat flour exported. To cut down materially that part of our exports would be suicidal, for those by-products are a necessity in the production of cheap meats, butter, cheese and wool, which products take but little from the farm as compared with the corn crop.

There are fewer states interested in growing corn for the market than there are in growing wheat, and even if corn could be raised in price by inducing consumers to accept meal in place of flour, more farmers would lose by the change than could possibly profit by it.

Upon one point we take direct issue with the "maize propaganda." It is the claim that to succeed in its object would "permanently and legitimately advance the price of America's greatest crop." If the ultimate extent to which corn could be raised had been reached, then such a result might be obtained. But a better price for a time simply means increased production both at home and abroad. A higher price for corn means more attention given to its production throughout southern Europe. There are millions of acres now sown to wheat and rye in Austria, Italy, France, Roumania, southern Russia—yes, and the East Indies, upon which corn would surely be grown if the price promised better profits than

wheat. It is claimed by some enthusiasts, we know, that maize, or Indian corn, cannot be grown to advantage outside of this continent, and only in certain portions of that. But we have learned to discredit such claims until they have been proven by long continued and thorough tests. The cotton states long held the theory, and it was believed throughout the civilized world, that their great product could not be produced in sufficient amounts to meet the requirements of the people. To-day Egypt and India are selling cotton so low that the American grower cannot hold his own market. If this should turn out so in the case of corn, what would be the result? Why, that the American farmer had sacrificed his market for flour, and by so doing had taught his competitors how to produce their own corn, and both the substance and the shadow would be lost.

As the matter stands now, we are in a very strong position. What we send abroad—meats, butter, cheese, flour, etc.—do not deplete the farms on which they are produced of their fertility. The price of wheat is high, and it can be grown in a larger number of states than corn. Let us hold fast to the markets we have won in competition with the world, not attempt to destroy them. The true way to raise the value of corn is to feed out more of it on the farm. Make it scarce for this reason, and the price will be higher. By doing this the foreign markets for flour will be held, and the farms will become more fertile from year to year.

We notice that the Indiana Farmer holds nearly the same views on this subject that we do, and we quote below some paragraphs from a recent editorial in that journal:

"We have felt friendly towards this movement, because it seems to have originated in a desire to benefit the corn-growing farmers of the west, by securing them better prices for their principal crop; but after further consideration we are not sure that this is the best thing to do after all. Corn is an exhaustive crop and land must be recuperated after being long devoted to it. Feeding stock on the farm furnishes the best and cheapest fertilizer for keeping up its productiveness. If we send our corn away to foreign lands we must replace the fertilizing material that goes with it with commercial fertilizers at an expense of from \$4 to \$6 an acre; whereas if we feed the crops to hogs and cattle we replace what is taken away at an expense so insignificant that we hardly think to take account of it. Besides this we get from 25 to 50 per cent more for the crop with only the slight additional cost of feeding it to the stock. In view of such considerations it seems much the better plan to export the corn crop in the shape of meat, and therefore our principal efforts should be to secure, if possible, the opening of all foreign ports to our pork and beef, and to secure for the farmers more of those breeds of cattle and swine that are best adapted to convert the corn crop into meat. There is no objection certainly to teaching our people and those of foreign nations the value of corn meal as human food, but we believe it would be more to our profit to induce them to use more corn-fed beef and pork of our feeding."

It is announced from Chicago that the recent advance in wheat will result in Mr. Leiter and his friends cleaning up about \$2,000,000 in cash on the deal he has been running since December. This is a large sum of money to be made by speculators; but it should be remembered that it has been made by holding up the value of one of the great staples, and given the farmers an immense sum over what their crop would have brought had no deal been in progress. We are pleased, therefore, that Mr. Leiter has won, because he was on the side of better prices for wheat. His operations also aided in pushing up the values of other

grains, in sympathy with the upward movement in wheat. Had Mr. Armour won, it would have been at the expense of the wheat-growers, as he could only make a profit if values declined. The probabilities are that Mr. Armour's bank account is much "Leiter" than it was when he started to bear the market.

### WAITING FOR HIS REPORT.

As we close up this page of The Farmer, no report has been received from Commodore Dewey of his operations in the Bay of Manila; but enough is known from Spanish sources to make certain that he has gained a notable victory over the enemy. The entire Spanish fleet has been wiped out, and the shore batteries designed to protect the bay have been silenced. It is believed Commodore Dewey and his fleet are now in possession of the city of Manila, and thus control the Philippine Islands. There are nineteen hundred of these islands, large and small, and Luzon, on which Manila is situated, is 14,000 square miles larger than Cuba. In fact they constitute an empire in themselves, and have 7,000,000 of inhabitants, made up of Malaysians, Chinese, Japanese, and Spaniards. The success of Commodore Dewey, if followed by equal success on the part of the fleet blockading Cuba, will probably end the war, as Spain is on the verge of a revolution. The only thing likely to lengthen the struggle is some complication with one of the European powers which have been thinking of appropriating these islands, and feel chagrined at the daring and enterprise which have thrown them into the hands of the United States. To Commodore Dewey and his brave sailors every true American will return grateful thanks. They are worthy of the flag they fought under.

### THE SITUATION IN WHEAT.

At this writing wheat values have advanced to a point where holders of the old crop cannot afford to wait any longer in realizing on their stocks. As high as \$1.10 has been paid at country points the past week, and probably some sellers have done better than this.

In looking over the situation it appears to have elements of strength as well as weakness. The strongest point is the relatively low stocks of wheat the world over. This is seen in the action of the French government removing the duty on imported wheat until July 1st, and the breaking out of bread riots in Italy which had to be suppressed by calling out the militia. Everywhere spot wheat is worth more than futures, showing that actual trade requirements are what is holding up prices, not speculative dealings. In fact, most dealers are on the bear side of the market, believing that values cannot long be maintained at their present high range. The war with Spain is also a strong factor in maintaining high prices for wheat.

On the other side we have several factors which will operate to reduce values. One of these is the amount of wheat being received from the northwest, which is much greater than looked for at this time. Another is the liberal receipts from Russia, which amounted to 2,464,000 bushels last week as compared with 3,024,000 bushels from the United States. Still another, and a most important one, is the near approach of harvest in the extreme South, and the good crop conditions which are general throughout this country and Europe. It looks like a 600,000,000 bushel crop in the United States, while other countries seem to have excellent prospects also. We don't expect even big crops will pull down prices to the low range of the



past few years, at least for a time; but it looks as if the advent of the new crop would surely cause a sharp decline, and that it would come before the crop reaches the market.

If, as some predict, the war comes to an end within a few weeks (which we do not believe), another strong prop would be knocked from under the market. If, on the other hand, it should be extended indefinitely, the result would be a strengthening in values of breadstuffs. It is likely to last until the fall months at least, and it must be a strong support to the market until it ceases. But it is safe to say, no matter which way the market turns, that the man who sells now will make a good profit on his crop, and avoid the risks which those who hold the grain must be subject to within the next month.

#### HOW PEOPLE CHANGE THEIR MINDS.

The first week in January last the Chicago Record, which was a bitter opponent of any increase in the American navy, said in an editorial:

"In spite of the almost universal craze for great navies, sea power, with all respect to Capt. Mahan, has not cut much of a figure in any great war since the Crimea."

The ignoring of the work done by the American navy in the war of the Rebellion, and of Japan's navy in the recent war with China, showed how ill-informed the editor of the Record was. But time brings changes, and men change with them. The Record is now shouting loudly in honor of the American navy. Commenting upon Commodore Dewey's victory in the Bay of Manila, it says:

"The power of Spain in the Pacific, such as it was, has been annihilated, and there is added to the splendid annals of the American navy a sea victory worthy to stand comparison with the achievements of Paul Jones, Decatur and Farragut."

This victory has recalled to the editor's memory the great deeds of Farragut, which it seems he had entirely forgotten. And now that editor is planning movements for the American navy and abusing the government in choice billingsgate because they have not been adopted. What a record for a naval critic!

#### SOUND AND UNSOUND.

A Reader, at Lowell, Kent County, sends the following queries:

"Does not sound have to be produced before the ear can hear it? We have a teacher here who contends that the ear is the producer of sound. For example: If a tree falls does not the contact of the two bodies produce the sound? The teacher claims the ear produces this sound. Please state which of these is correct."

If our correspondent has stated correctly the position taken by the teacher referred to, then certainly the teacher is wrong. For instance, as we write a brass band is playing at some distance. In the sounds we distinguish the beat of the drum, the shrill tones of the clarinet, the deep bass of the tuba, and the clear, silvery tones of the cornet. If the ear made these different sounds, why is it necessary to have a band at all? The band being at a distance, how can the ear tell that a drummer is striking the drum, or another man is playing on the cornet if it produced the sounds itself? Here is a great singer coming many miles at heavy expense to sing before an audience. Why, if the ear produced the sounds, is it necessary to bring her? If that teacher went out on the street and shouted as loud as possible, would he claim that it was his ears and not his mouth that made the sound? If so, what was the use of his straining his voice to make a noise when his ears would have produced it without trouble? The facts are that the ear interprets sounds, but

does not produce them. The difference in sounds comes from the various ways in which the air is caused to vibrate. A great singer is able to agitate the air differently from one who is not gifted in that particular way. People will pay a high price to hear the one, and would call in the police to suppress the other; yet their ears would be the same. So it certainly is not people's ears which produce the sounds of the singer's voice, but the singer's vocal organs. But let us see what the lexicographers say regarding sound. Webster says:

Sound.—The perceived object occasioned by the impulse or vibration of a material substance affecting the ear; a sensation or perception of the mind received through the ear, and produced by the impulse or vibration of the air or other medium with which the ear is in contact; the effect of an impression made on the organs of hearing by an impulse or vibration of the air caused by a collision of bodies, or by other means; noise; report; as the sound of a drum; the sound of the human voice; a horrid sound; a charming sound; a sharp, high, or shrill sound.

That is a very good definition of sound, and shows that outside influences, not the ear itself, produce it. That teacher should revise his ideas on sound at once, because they are certainly unsound. We presume he holds that people's ears are responsible for the harsh tones of a donkey's voice, and not the peculiar construction of that much abused animal's vocal chords.

#### THE LESSON SHOULD BE REMEMBERED.

We have received from Col. J. Sumner Rogers, a small pamphlet containing extracts from a paper read by him before the Michigan Political Science Association at its meeting in Detroit, November, 1894, on the subject of "A National Reserve for the Exigency of War." In view of the present emergency the statements made by Col. Rogers are worthy of careful consideration. We give a couple of extracts to show the trend of his paper:

"Some of the worst mistakes our Government has ever made, have been made in the lines of economy which passed the verge of parsimony; and while nominally reducing national expenses, they dwarfed the resources of the country to such an extent, as to make consequent sacrifices of money and life the occasion of terrible burdens to the people, and awful sorrow to hundreds of thousands of homes."

"Under the plan which I suggest, the expense would be merely nominal. At the same time we would have a body of trained military officers, ready at a moment's warning, fitted to drill and prepare for service, an army of over half a million men. In case of any national emergency, it would require but a few hours' time for orders to be sent by telegraph from the war department to the commanders of these proposed skeleton regiments, authorizing and directing the immediate enlistment of the men provided for in this plan. More quickly still the orders could go forth from the commanding officers to those directly under them; so that, at once, companies could be enlisted under trained officers, ready to take their places in the ranks of a full and thoroughly competent regiment."

"Our War of the Rebellion taught the nation at large, and military men in particular, the awful lesson that months may be lost in preparing men for active duty. Indeed, the first two years of that awful conflict, were simply so many years of schooling for the officers of the army, schooling for which the nation paid in untold millions of money, in hundreds of thousands of lives, and in a burden of sorrow under which this generation still bows."

Every thoughtful man must recognize the stern truths contained in the above statements. But they should never again be true of this nation. The families sending out their young men to defend the nation and its government should demand that they have competent officers to command them, who will not require instruction in the face of the enemy, at the sacrifice of valuable lives, before they become capable of filling their positions. The

government owes this to the thousands of young men who, musket in hand, will peril their lives for its maintenance and the protection of the nation.

For The Michigan Farmer.

#### FLOUR ADULTERATION AS RELATED TO CONSUMERS.—No. 3.

BY R. C. KEDZIE.

In these times of war and rumors of war, public attention is taken up by the exciting events of war which thrill our people and astonish the world. Yet whether on fleet, on battlefield or at home, all must eat, and bread is still the staff of life. The quality of our flour and its adaptation to making aerated, wholesome bread are questions that concern the whole people.

I enter upon no crusade against Indian corn as human food. It is a valuable grain, and its use for scores of years by thousands of our people is proof of its value. But its offices and uses in bread-making are widely different from wheat flour. The question whether the products of Indian corn and the wheat grain shall be "blended" into a product to be sold as wheat flour, the buyers receiving no hint that a cheaper material has in part replaced wheat flour, is a matter of importance to all. It is not a question of the relative importance of wheat and corn for human food. Each grain has its own position in food value, but the positions are not identical. The one may be called animal food, and the other human food. It is a matter of observation among all civilized races that wheat is pre-eminently adapted to the wants of an energetic, brainy race. In the wide search of the botanist and physiologist, no grain has been found to take its place. For making light and digestible bread, no grain can compare with it.

Every cook knows the unfitness of Indian meal by itself to make a light aerated loaf of bread that will remain spongy, elastic and toothsome twelve hours after leaving the oven, while the capacity of wheat flour to make such bread is known to everybody.

The question arises whether benefit might not be secured by blending these flours of such opposite qualities and form a mixture combining the good qualities of both and at less cost? This practice has secretly been carried on in many flour mills at the south, and the product sold as cheap flour.

To examine the bread-making quality of such flours, I procured a barrel of such flour from the leading mill in Louisville, Ky., and another from the leading mill in Nashville, Tenn. An attempt was made to estimate the doughing, and the bread-making quality of such flours in comparison with a certain grade of Michigan flour. For this purpose, the highest grade or patent flour was not used, but the grade of flour from which patent has been fully withdrawn, leaving a third class flour known in the trade as "clear." Three sacks of flour, numbered 1, 2 and 3, were put up for the trial. No other mark or intimation of the kind of flour used, and these trial sets were placed in the hands of skilled bread-makers, viz.: Mrs. Prof. Smith, Mrs. Prof. Beal, Prof. McDermott at the College, Mrs. Esselstyn in Lansing, and Miss Vaughn, a past graduate in the woman's department, who made the bread in Abbot Hall.

All these ladies made strenuous efforts to make good bread out of poor material. When reports were compared it was nearly unanimously decided that No. 1 (Louisville), was poorest in doughing and baking quality, that No. 3 (Nashville) was a little better, and that No. 2 (Michigan "Clear") was the best.

The same College ladies, with addition of Profs. Smith and Beal, Mrs. Bacon and Mrs. Kedzie, met to examine the bread as to loaf-formation, texture, keeping quality and desirability as food. No intimation was given of the kind of flour used in the several loaves. Where the bread was left just as it came from the oven there was no trouble in telling the kind of flour by drawing a finger over the crust, a roughness like sand paper revealing the presence of the corn flour. When the crust had been buttered when taken from the oven, the rough texture was still evident.

The bread jury gathered around a table, the loaves were cut and slices placed before each juror, the bread pointed out as No. 1, 2 and 3, and opinion requested as to color, ves-

ulation, texture, odor and taste. In nearly every point the vote was in favor of No. 2 (Michigan Clear). In color, taste and edible quality No. 2 was clearly in advance of the corn-fed rivals.

As it was understood that these flours from the South were wanted for critical examination, it may be assumed that they sent their best specimens of the kind. Indeed, the flours bore high-sounding names. Yet in this comparative test, under conditions to preclude prejudice, they were both inferior in nearly every point to a third-class Michigan flour. Yet such adulterated flours are foisted upon the public and sold without any warning of the kind or amount of adulterant used.

Will such adulterations of flour find a foothold in Michigan? The temptation to resort to this fraud is strong when the large profits are considered. The following extract from a recent number of a Michigan paper looks suspiciously in this direction, especially when we consider the relative prices of the spring wheat of the northwest and of our own winter wheat:

Attention! Blended Flour.—Owing to the extensive use of spring wheat flour, which we learn is used by mixing with winter wheat flour by the consumer, also the extensive demand for such a blended flour by outside markets, we have concluded to make our Genuine flour of that variety in the future. We will mix a certain amount of spring wheat flour with our Genuine while being manufactured so that it will be thoroughly blended, making a strong, white nutritious flour, and will be sold within the reach of all.

We will also exchange this same flour with any customer, giving 36 pounds of flour, 10 of bran, and 2 of middlings for each bushel of 60-pound wheat. We ask a trial and would caution the public not to pay fictitious prices for other so-called mixed flours.

We have tried to get a trustworthy specimen of this blended flour. It is possible the spring grain of this blend was planted.

The custom mill of former days, where the farmer parted with a certain toll for the grinding but got the flour of his own wheat, has gone into general disuse, and the farmer gets back for his grain a certain amount of flour, etc., for each bushel of wheat. Suppose some bland and blending miller returns flour containing one-quarter corn meal, and he gets for 60 pounds of wheat, 27 pounds wheat flour, 9 pounds corn flour, 10 pounds bran and 3 pounds middlings. How would that suit the farmer? How could he help himself unless he has a powerful microscope to distinguish corn starch from wheat starch? It is time for farmers to study this question in all its bearings.

#### NEWS SUMMARY.

##### Michigan.

Citizens of Eaton Rapids have raised funds sufficient to sink a test oil well at that place.

Otsego county farmers are talking up the propriety of holding an agricultural fair this fall, and a meeting was called April 23d, to make the necessary arrangements.

Farmers are busily engaged in getting in their potatoes. Wheat is looking splendid, and fruits of all kinds appear to be coming forward in such shape that they will mature without interference from frosts.—Union City Register.

##### War Notes.

The American liner City of Paris, whose capture was reported last week and concerning which considerable uneasiness was felt, has reached New York in safety. The vessel's name has been changed to Yale.

The Quartermaster-General of the army has placed an order with the Studebaker Wagon company, of South Bend, Ind., for 200 ambulances, making a total of 300 which have been ordered since preparations for hostilities.

Dr. John M. Guiteras of the University of Pennsylvania, and leader of the Cuban Junta at Philadelphia, has received instructions to go at once to Tampa and superintend the safe-guarding of American troops from climatic conditions to which they may be exposed.

Reports from Havana are to the effect that the sunken remains of the battleship Maine have been destroyed by the Spanish authorities. It is believed that this was done for the purpose of preventing the use of the wreck as evidence in the investigation which will be made by this government as soon as possible after the fall of Havana. It was also probably done to remove all possibility of the vessel being raised.



## The Household.

CONDUCTED BY MRS. ELLA E. ROCKWOOD.

We should be pleased to have any of our readers who take an interest in household topics, send in their views and opinions upon any subject which is under discussion, or which they wish discussed. The invitation is general, and we hope to see it accepted by many. Address all letters for The Household to Mrs. Ella E. Rockwood, Flint, Mich.

For the Michigan Farmer.

### WHERE!

Where are the scenes we now recall,  
Those scenes to our memory dear?  
Where are the friends we dearly loved?  
Those friends that then were near.  
Where are the days now past and gone,  
When our lives were free from care?  
Where are the joys of that blissful past?  
Only echo answers "where!"

Some of those friends, long since went on  
To the bright and better shore.  
And the happy days which we now recall,  
Can return to us never more.  
The flowers sweet, that long ago  
Showed us their smiling faces,  
Bloom no more! but are scarcely missed,  
For others take their places.

Is it not thus in human life?  
Our pleasures fast are fleeting—  
We see them pass; we know they're gone;  
Yet others soon we're greeting.  
But it is not so with the friends we love,  
Though they vanish before our eyes,  
They live in our hearts throughout the  
years.  
'Tis truly said: "Love never dies."  
A. ROXANA KEYSER.

### HOME CHATS WITH FARMERS' WIVES.

THE KING'S DAUGHTERS AND SONS.  
Last week I attended the annual State convention of the order of The King's Daughters and Sons, held at Flint. I had planned to attend this convention throughout, with the exception of the evening sessions, but both the first and last days proved to be very stormy and bad, so I was forced to be content with but one, yet even that has been such an uplift, such an inspiration that I shall have something good to think about for a long time.

The only drawback to my enjoyment was that, living five miles in the country, I was forced to leave for home before the session closed, thereby missing much that I would have been glad to hear. I wonder if our city sisters, with their plethora of good things in this line, appreciate them as do we who can avail ourselves of the privilege only semi-occasionally.

The order of The King's Daughters and Sons was organized in New York city in 1886 and has at the present time a membership of nearly half a million. The badge of the Order is a small silver cross bearing the initials I. H. N. (In His Name.) The Order is entirely undenominational, and its members are from every church. The objects of the society as stated on the membership cards are: "To develop spiritual life, and to stimulate Christian activities." "Any person may become a member of the Order whose aims are in accord with its objects and who holds herself responsible to the King, our Lord and Savior, Jesus Christ, whose followers they are."

At the head of the Order is Mrs. Margaret Bottomo. Its official organ is The Silver Cross, published weekly in New York, at \$1.00 a year.

The convention was presided over by the national secretary, Mrs. Davis, of New York city, and over 40 delegates from different parts of Michigan were present, with reports of the work done by the Circles which they represented. It was a most enthusiastic meeting and gave us new insight into what the Order is doing along the line of practical christianity. The number of visits made by members to the sick, poor, and unfortunate, the employment provided, the garments, bedding, shoes, provisions, flowers given—and all in the sweet spirit of the Master, and "In His Name." Surely the world must be growing better when hundreds of thousands of women, young and old, all over our broad land evidence their interest in the welfare of those less fortunate than themselves by giving their time, their money, their talent to their relief.

The work is broad—is bounded by no rules, but each Circle is at liberty to adopt any line of action which it may elect. Some of the delegates told of homes provided for aged women and for children. Several Circles have each a protegee in the shape of a boy or girl who is being cared for and educated at their expense, one of these being a little girl of 11 who bravely cared for her little 5-year-old brother

during the recent famine in India, picking up food for him about the streets and sleeping in a nook beneath a bridge at night.

Two delegates reported providing burial outfits and clothing little ones of the very poor for their last resting place; outings have been provided for those in need of them yet without the means of supplying that need; girls who have wandered away from their homes and been led into wrong have been traced and restored to their parents—in fact the good work accomplished by the members of the Order as reported from the different Circles represented in this convention is by far too extensive to be mentioned here in detail. The greater share of it is done in cities, towns and villages.

And how is it all brought about? It takes money, to be sure, and this is obtained in various ways, those usually resorted to in church work and which are so familiar to us all. A small fee is paid annually by the members and in addition, there are socials, sales, musicales, etc. The loving service, the sweet Christian spirit, the self-denial many times manifested gives additional force to the work, for all is done as to the Master, and in His name, no matter how slight the service if performed in this spirit.

And neither is it necessary to belong to the Order to participate in the work, for may we not all be truly The King's Daughters even in our humble homes scattered over the country? Not one of us but may do His will where'er we may be, and opportunity will not be lacking in even the most out-of-the-way corner of the earth.

I could but think as I sat there listening to those consecrated young women—many of them mere girls—how far better it is to be engaged in such work as theirs, holding their meetings where devotional exercises are always a part of the program, planning, working, doing for others, than to be a member of some of the clubs provided solely for social entertainment now-a-days. Were half the energy expended by whilst clubs, euchre clubs, etc., to be spent in some charitable work how much additional good might be accomplished.

### HOME AGAIN.

What magic in those words! What but the real abiding home of the soul can compare with the reality of a Home, Sweet Home? The lordly mansion is not a synonym of happiness, but the home of which Howard Payne sang, whether in lowly cottage or the castle of a prince, implies all we can define by the word home. "The sacred refuge of life."

That one should understand and appreciate its significance needs only a few months, or weeks, absence, when the "homing" thrill will vibrate through and through the inner consciousness and, dare I say it, suggests at least the thought that the lines are being connected, and we are again in communication with influences that are indescribably sweet.

How beautiful the thought expressed by Phillips Brooks: "The life we are now leading is more aware than we know of the life which is to come. Death which separates the two is not like the great thick wall it has been pictured. It is rather like a soft, yielding curtain through which we can not see, but which is always waving and trembling with the impulses that come out of life which lies upon the other side of it."

I love to think that those of our dear ones who have passed on to a higher plane still find their sphere of action among us, just in proportion as we live spiritually enough to co-operate with higher forces than our own.

Do I hear someone say, "She is a spiritualist?" Are we not all spiritualists who believe in a future state of existence? In fact is not the spiritual life all the life there is? When the spirit leaves the body where is the impelling force? The phenomena called spiritualism is beyond me. Neither do I condemn. Of my own experience I do know that we are part and parcel of all the life there is, and we need not wait for the event called death before we can train our vision to look up to the everlasting source of all good, and drink deep of the nectar of life as it freely flows for all who will receive it.

Lillian Whiting says: "No one has any more right to go about unhappy than to go about ill-bred." This is strong language, but really have we not all come in contact with persons

who ruffle us so entirely that often it takes days to recover from its effects? In other words, the electrical current is broken, and it is days before we are again conscious of being at our best, which should be our normal condition.

During my wanderings the past winter I have met a class of people who were an inspiration to me. They are what are called Dunkers and Amish, two distinct sects, yet in what they differ I did not learn. Their clothes are all made the same as when they fled from the persecutions of the old world, and landed in Pennsylvania. The overflow from that state began over a century ago and to-day they possess a goodly share of that great state. What impressed me most was their extreme simplicity. They have nothing for show, and only comfort and convenience are apparent in the surroundings. If farmers, their buildings are located in the center of the farm, regardless of highways. If harvests fail they can still be serene as they have no debts to force them to sell at a loss. I readily found the key to that mystic shrine. Dame Fashion is not enshrined in their hearts. Their churches are all built in the country and it was a new thing under the sun to me to see people pouring out of town, rain or shine, to go several miles to church. One member I met was wearing a hood she had worn every winter for twenty years. To church! In summer they wear sun-bonnets and always white lace caps. A lady 33 years of age told me the only merchant in town had goods on his shelves that his predecessor had when she was a little girl.

They are always ready to help the unfortunate among them. One lady at whose house I visited took me into the cellar, and such quantities of eatables I never saw in one house. The meat from seven hogs, one whole beef, no end of sausage, both stuffed and packed, maple sugar four years old, they never sell any; canned fruit galore. I asked what on earth they could do with it all? "Oh, give it away," was the answer. "There are plenty who will need it." What farmer could not be independent did he follow such people?

Craig Jencks.

E. MARIE.

### A CHAT ON SPRING FASHIONS.

The first dress that I am going to tell about I saw on the street not very long ago, and the lady who was wearing it came out of the largest and most fashionable hotel in the city.

The skirt of the dress was the only part to be seen, and that was entirely covered with ruffles. It was not very full and was walking length, just cleared the ground. The foundation of the skirt was black (I could not tell what material), and it was ruffled from waist to foot. The ruffles were all the same width, about two and a half inches deep, and were pinked at the edges, each ruffle forming a heading for the one below it. They were made of black China silk, not very full. When the wind tossed them about they looked like feathers, the silk was so thin. The jacket was a light drab, almost white, reaching to the waist. It was loose back and front, seams under the arms, only; large white pearl buttons, gloves to match the jacket. The hat worn with this suit was light drab felt, sailor, with drab and white ostrich tips on the front and on the left side.

A beautiful dress shown at a spring opening was as follows: The waist was a beautiful shade of light blue silk made with a plain back, the front full, gathered at the shoulders from the neck to arm-holes and also gathered at the waist-line. It was long enough to reach about quarter of a yard below the waist and was finished around the bottom with a facing, and is worn outside of the skirt. The neck had a plain standing collar fastened in front. The sleeves were a very small leg-of-mutton with a narrow bias ruffle at the waist. Over the entire waist and sleeves was a covering of black chiffon; this was sewed in with the seams. Outside of all was a belt of the blue silk, cut bias, one and three-quarter inches wide, fastened a little to the left under a bow of the silk, cut same as for the belt, two loops and two short ends. The skirt was made of the blue silk, five gores, and it was covered with ruffles made of heavy black silk. The ruffles were bias, three inches deep, with a narrow hem at the edge. They were turned under at the top and gathered at the very edge, not very full, and put on so as to have them quarter of an inch apart. They cover the skirt

from the bottom to where the waist reaches down over the hips.

Another dress was all black silk, ruffled to the knees. The ruffles were straight, narrow hems, and more fullness than in the bias ruffles and put on so as to cover the heading of each lower one. This skirt was fuller than the ones ruffled to the waist. The ruffles were three inches deep. The waist was full back and front, worn under the skirt. A loose coat sleeve ruffled from shoulder to waist. A very high standing collar with bow in front.

Some skirts are trimmed with narrow ruffles put on in festoons or waves reaching nearly to the knees. Silk is used for ruffles on woolen goods. Braid is a very fashionable trimming for all materials. Serge in black and colors seems to be a favorite. Gage braids are much worn in fancy waists. Fancy waists are much the same excepting the sleeves, which are smaller. Most of the sleeves seen so far are a small leg-of-mutton or bishop, some of them having a deep cuff. It is early for wash goods yet.

I saw a made-over dress that looks like new. The material is Bedford cord, black. The skirt had to be pieced down around the bottom, and as there was not enough of the goods for all the trimming, black silk was used with it. At the bottom is a ruffle cut straight, three inches wide and narrow hem, made of the dress goods. Next is a black silk ruffle, same width as the bottom one, then another of the cloth and so on, alternating the black cloth and the silk until six ruffles are on, this being sufficient to cover where the skirt was pieced. The waist was finished with black silk. It was plain back, very little fullness just in the front, and at the edge of the front hem was a two-inch wide silk ruffle turned to the left. The collar was black silk cut on the bias, very high, and fastened at the front. The sleeves were cut a very small leg-of-mutton, with a deep silk cuff.

In making over dress skirts the piecing may be done nicely, as the ruffles can be put on any width and number, or braid may be employed. Drab woolen goods with bias black silk ruffles is very neat, also a medium shade of brown with dark brown silk ruffles, cut bias and about two inches deep.

A very stylish suit made of blue serge consisted of jacket and skirt. The skirt is five gores, walking length, trimmed with black velvet ribbon. The first row is put on four inches from the bottom of skirt, and is three inches wide. The next row is two and three-quarters wide and so on, each row being quarter of an inch narrower until the last row will be only quarter of an inch wide. The rows of velvet are two and a half inches apart. The jacket is small, plain back, loose open fronts, to be worn over fancy waist. Sleeves small leg-of-mutton, three rows of half-inch wide velvet at the waist. Brown and black suits made the same style, trimmed with black, are very pretty.

A party dress of light blue silk, full waist with white lace ruffles across the front; coat-sleeves with lace ruffles entire length; waist worn under the skirt, with long sash of blue ribbon; standing collar fastened in front. The skirt was trimmed to the knees with white lace ruffles, three inches deep, not very full, and put on one inch apart.

The new spring hats and bonnets are in many shapes and sizes. Some of the hats are very large, while others are quite small. The trimmings are in great variety, fancy feathers, ostrich tips, flowers and ribbon, also black velvet.

A walking hat, brim turned up on the right side only, was dark brown, fancy straw; on the left side, well towards the back, was a large cluster of long, brown quill feathers, standing up perfectly straight. At the end of the quills was a small bow of brown satin ribbon.

A dark drab straw walking hat, turned brim, with a band of drab ribbon around it, and stuck through the band at the left side were two very large feathers, grey turkey feathers. The quill ends were out over the brim and pointed to the front, slanting so as to reach but a little above the crown of the hat. The feather was fully eight inches long.

A white straw with a straight brim, not very wide, and crown like a walking hat, has a band of black velvet around it; the velvet is three inches wide, cut bias, and is plain around the hat, no bow. Through the band at the left is stuck a large quill-



feather, as described above. Sailor hats seem to be in favor; some are plain, straight brims, others turned up at the back on one side. Dark purple violets, and bright blue violets are worn more than ever. Some of the hats and bonnets are almost entirely covered with them.

The bonnets are pretty little things. Some are made of straw, both plain and fancy braids, others of lace or of silk. Some are so completely covered with trimming that the shape, or material they are made of, cannot be seen. A very pretty bonnet made of black lace and trimmed with dark purple violets, a rim of jet around the edge, and wide black lace ties, is a handsome bonnet for middle-aged ladies. The violets are worn as much by the young ladies, and on both black and white hats.

CLARA.

## SHORT STOPS.

Ginger Snap writes: Julius Garrett tells us how to tan a dog skin. I know a good many dogs whose skins I would like to see go through that process, but will be please to tell us what use he makes of the skin after tanning?

A. H. J. writes: Lace curtains should be put into warm water and allowed to soak for 24 hours before washing, then soused gently by hand in tub or boiler but never rubbed, and always put through the wringer, not wringing by hand. Starching is a matter of taste. Most people stiffen slightly, but whatever else is done, don't hang on the line to dry. Spread on the grass, or better still, over a nicely trimmed hedge.

Harth F. Beatie writes: I wonder how many of the sisters make their own mucilage? This is the way ours is made: Take one ounce of gum tragacanth and soak in a pint or more of soft water; when thoroughly dissolved mix with it as much corrosive sublimate as will lay on a silver five-cent piece. This is the preservative, bear in mind the poisonous nature of same, and use carefully. Having the advantage of sticking to whatever you wish it to, and letting your fingers alone, we prefer it greatly to that which one can buy.

There are so many helpful hints given in the Household, one cannot help wishing that there were more who read and appreciate, that would let their voices also be heard within the circle. Come now; let the rest of us have the benefit of the contents of your spacious "lumber-rooms." To be sure there are different ways of using our generators; a tender touch to an aching brain; a loving word in a letter; a flower in a sick room—these speak volumes in their season.

I have always read that "Hope de Ferd maketh the heart sick," but this new edition of it is so far from doing so that we would like to know her a great deal better and longer and oftener.

A friend writes: I will tell J. E. B. how I make bread. Cook three or four good-sized potatoes, wash them, add one cup of granulated sugar, three tablespoonfuls salt, and the potato water. If not enough put in water. When milk warm put in one yeast cake which has been soaking in a cup of water. Set in a warm place till morning, when it will be all foamy. Stir it up and take out a pint in a can to start the next batch, which is made the same way. Always save out the pint to start the next. Stir in flour and make a sponge, beating it good. When it is light mix thoroughly; grease your dish pan, put in and let rise again, then just mix it down a little, and form into loaves. Let rise and bake, then grease the top and let stand till cold before putting away. Do not cover it up, or put any cloths in the bread can. Follow these directions and your bread will keep moist and not dry out.

## KEZIAH'S KINDERGARTEN.

It occurred to Mrs. Kedzie, that the active minds of her two little boys would as readily appropriate the "abs" of the elementary spelling book, as the vagaries of Mother Goose, Blue Beard or Cinderella. As they played about her feet, while doing her housework, or sitting at her needle, she would repeat to them the simplest combinations and variations of the alphabet. The little fellows immediately "caught on," as the saying is.

"Mamma, I want to say a letter! I want to say a letter," cried little Ward; and she indulged him—only 2 years old—by showing him a letter, as she did his older brother, himself

a trifle over 3. Only one letter at once, and very soon both babies knew that letter at sight. Another, then another. Much sooner than would be expected, both had learned the twenty-six letters of the alphabet.

One might say no time as labor had been expended. The babies had simply been amused. Both boys knew the alphabet at sight; both knew the simplest combinations of their sounds. In the same way they learned to spell and read their first little primers. On the same principle she told them truthful stories, instructing, as well as simply amusing them. And when, in after years, the then 2-year-old little Ward occupied the editorial chair, he declared to his friends, "I have no recollections of learning to read. It seems as though I always knew how."

A still younger son used to call for the song of "Moses in the ark of bull-rushes," "Mamma, ting 'Tide River'" (sing, "By the side of the river so clear").

It is just as easy to teach babies sense, as nonsense. In teaching sense you have occupied just so much ground. Never talk "baby talk" to them. It is pretty to hear their lisping, but much more interesting to hear them properly accenting their words. I know a large family of girls, all of whom, except one, lisp, simply because they were never taught better.

ARUAL E. S.

## GOOD ADVICE FROM L. N. H.

The semi-annual house cleaning time has come and the housekeeper who does her own work is busy planning for the coming campaign. About this time there is an extra hired man, and gardening to think about. But there is one thing in our favor, the days are long, and with careful planning we manage to worry through it. Making housework easy is easier said than done. It is true there are some kinds of work we can make lighter, but the same tasks have to be performed every day. Neither do I know of many housekeepers who get their work all done in the forenoon and have the afternoon to do whatever they choose. This may be the exception but not the rule. But every housekeeper has a certain way of doing her work. I have heard women say they always ironed Tuesday morning, if they had to dry the clothes by the fire in order to get it done, but I prefer the clothes line out of doors to a line by the fire. Then a great many make a practice of baking enough Saturday to last a whole week. Well, I would rather bake oftener than to have stale victuals on hand, if it does make more work. I believe in putting good wholesome food on the table for our families to keep them good-natured, to say nothing about their health. There is too much time spent at the ironing board. I do not believe in dampening sheets and towels, but like my towels best ironed. I do not spend much time pressing them, however.

We also patronize the wholesale store in Chicago, and so far everything has been satisfactory. On one article alone I am positive I saved \$1.50 after deducting freight. If the local merchant would allow us to fix the price on our butter and eggs we would feel different about paying him his prices.

I believe every person has a right to deal where he can do the best. This practice of sending away for goods has also been the means of bringing our local dealers down to something like living prices on certain lines of goods.

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## TO GIRLS.

Where is there a girl who doesn't cherish the fond hope of sometime having a home of her own? a particular domain to rule over and be "boss" in, and who has not formed some idea of how they will rule when they get the house? In your present home it may be you are not allowed much say as to how things are done. Yet how often the thought will come to you, perhaps on hearing different ways of doing work. "Well, now, I'll remember that and try it sometime in my own home. And I believe it is all right, too."

What is more noble than good, tidy housekeeping? Remember I say good tidy housekeeping. Certainly there is nothing very noble or inspiring in a house where things look every day as you would expect them to on housecleaning days, and the housekeeper looking even worse. What would you think of a mother so thoughtless and foolish as the one I am about to mention. The other day a young lady of twenty years said to me in a bragging way: "I don't know one thing about housework." I said: "Why, what would you do if you got married?" The mother replied: "Oh, she will learn soon enough when she has to. I didn't know any more than M— does when I got married." Let me tell you, you wouldn't doubt it if you saw her house. I should think that woman's own experience would have taught her different.

Girls, above all things learn to be good housekeepers and cooks. No art that you can learn will ever profit you as much. "Oh," you will say, "I don't like it. It's too hard work." Yes, it is hard work, but sometime you will have to do it, and it's not so very hard if you know how. You can't learn it all at once either; a good housekeeper keeps learning a little every day. Take pride in being neat. Don't get in the bad habit of slighting small things, such as cooking meat in your frying pan several times without washing it, and leaving dirty dishes until you are obliged to wash them. Clean and fill lamps every day, dusting and tidying up. Such things if left undone are slovenly and make the home unpleasant.

Be neat and tidy about your personal appearance. I have seen girls with no natural beauty, when attired

in a neat print wrapper and apron with hair nicely combed, that looked more attractive than many a beauty in jewelry and finery. And here is another little private affair. It isn't all in what you wear on the outside that constitutes neatness. All your wearing apparel should be neat. I have seen girls who wore very nice dresses and at the same time miserably made-up undercloths, minus buttons and not altogether whole or clean.

And another thing. How about your sleeping room, girls? You may think "What does that matter; no one ever sees my sleeping room." It does matter. If you get in the habit of throwing things down here and there because no one will see them you will soon be doing the same in the other rooms, and besides you will feel better satisfied to know your room looks nice.

I. D.

## CONTRIBUTED RECIPES.

A good Johnny cake: Two eggs; one-half cup sugar; one cup sour cream; one cup buttermilk; heaping teaspoonful of soda; salt. Make a rather thin batter with corn meal and some wheat flour. Beat thoroughly and bake rather slowly.

Another Johnny cake: One egg; two cups of buttermilk; one-half cup of drippings; one-half cup of sugar, or two tablespoonfuls of molasses; heaping teaspoonful of soda; salt. Make a not too thick batter with corn meal and some wheat flour. The more it is beaten the better the cake.

A. H. J.

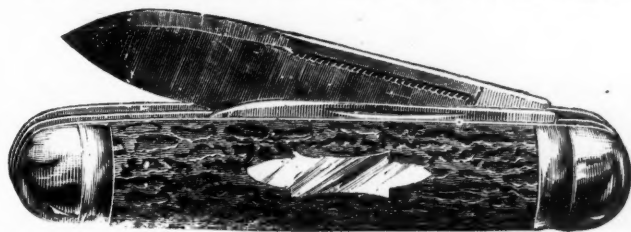
Potato salad: Slice some cold boiled potatoes rather thinly, the quantity depending upon the amount required. Chop a medium-sized onion and mix with the potato in a salad bowl, pouring over them the following dressing cold:

Into a bowl or basin which fits the teakettle top place one egg, one tablespoonful sugar, one teaspoonful of flour, one of dry mustard, and a little salt. Beat these together until smooth, then add half a pint of vinegar and cook over the teakettle's steam until thick. Stir occasionally during the process and add lump of butter size of small egg.

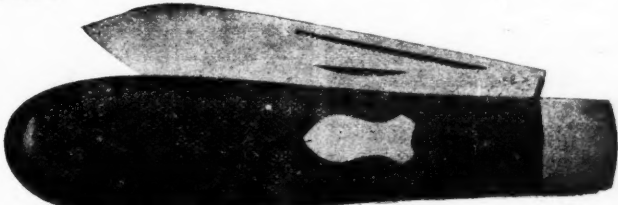
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## Legal Department.

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**Sink is Personal Property if Not Fastened to House.**—M. W., Lapeer, Mich.—1. Is a kitchen sink personal property if not nailed or fast in any way?—Yes. 2. Write to any bank in town where company is located, enclosing stamp for reply.

**Tax on Dogs.**—F. F., Thornville, Mich.—Tax on every male dog over three months old owned or kept by one person or family, one dollar; upon every female dog three months old owned or kept by one person or family, three dollars.

**Oral Lease for One Year Good—Oral Agreement to Farm on Shares for One Year Good.**—W. A., Mason, Mich.—A rented B his farm with a verbal contract, no length of time stated. B worked the farm two years and A became dissatisfied. The second year B sowed a field of wheat and seeded it to timothy. A and B each furnishing half of the seed without an extra bargain. Can B harvest the hay?—Yes. Leases for a year may be created by parol, and may be made good by parol from year to year. B may harvest the hay within a year from time of agreement to work field on shares.

**Cropping in Highway—Plowing Near Track.**—W. V., Maple Rapids, Mich.—Adjoining owners of land may use the highway in any manner not incompatible with the public enjoyment of the right of way. The question you ask about the exact point to which the highway may be cropped presents many difficulties, as the exact facts and circumstances alone control. Generally the beaten path or wrought part of highway must not be disturbed. The beaten track or worked part (between middle of gutters on either side) cannot be narrower than 20 feet, or wider than 50 feet. All the ground beyond the gutters at side of worked portion of highway may be plowed and cropped by adjacent owner.

**Sale of Merchandise by Parol—Void in Sale Exceeding \$50 in Price.**—E. W. R., Haslett, Mich.—1. A is a dealer in produce. B wishes to sell A 200 bushels of beans. A, in the presence of two other parties, tenders B \$10 in money on the deal. B refuses the money, saying, his (A's) word is good for the beans. The beans are to be delivered the next week. In the meantime B comes to A and says that if it will make no difference to A he (B) would rather wait until his hurry is over before he draws the beans. A consents to wait. During the time A is waiting B sells and delivers the beans to another party. Can A hold B responsible for the beans?—He can, if price is less than \$50. 2. For how large an amount will a verbal bargain hold good?—No contract for the sale of any goods, wares, or merchandise, for the price of \$50 or more, shall be valid, unless the purchaser shall accept and receive a part of the goods sold, or give something in earnest, to bind the bargain or in part payment, or unless some note or memorandum in writing of the bargain be made and signed by the party to be charged thereby, or by some person thereunto by him lawfully authorized.

**Powers of Board of Review—Majority Must Certify of Its Approval.**—Subscriber, Stanwood, Mich.—1. Did the State Legislature of 1897 make any change in regard to the duties of the Board of Review, and if they did, what are said changes?—There have been no changes; the statute stands as enacted in 1893, and may be found in Laws of 1893, on page 368. 2. Do not the members of the Board of Review have the right to demand of the supervisor a list of the personal property of the township (that is, what each man's property consists of, as cattle, horses, sheep, farm tools, machinery, mortgages, merchandise, etc.)?—Yes. 3. If one or more members of the Board of Review do not think that the assessment roll is equalized, and will not sign their names to said roll, will said roll be legal?—If there is no quorum present at any of appointed times for meetings of Board, the roll will stand as prepared by supervisor, otherwise it must be certified to and signed by a majority of the Board. The Board may "add names of persons" to roll, the value of personal property, make corrections, change valuations, and do whatever is necessary to make roll comply with provisions of statute.

**Attorney-General Maynard's Opinion on Rights of Persons in Lakes Wholly On Their Land and Unconnected With Waters of the State.**—The editor of this department has been asked and has answered questions on rights of owner of private lakes. The Attorney-General has given an official opinion which fully substantiates the views advanced in this column. It is as follows: "A private lake or pond or waters are those which are not navigable and the soil under and on the borders of which is owned exclusively by the person or persons who claim the waters as their private property, and having no connection with other streams which are public, and through which fish may pass."

Second question, "What are the fishing rights of the owner of a private lake or stream?" "The owner of a private lake or pond is supposed to have so far reduced the fish therein to his possession that they have become his private property. He may take such fish for his own use from such private waters at any time and in any manner. He may not sell or offer for sale during the closed season, when prohibited, because by so doing he interferes with the State in its protection of the fish belonging to the public. He may prevent any other persons from taking fish from his private waters, and may bring an action of trespass if after proper notice any one insists in taking his fish. He may make a criminal complaint against one who takes any of his fish under Section 2197 K. Howell's statutes if he himself has first complied with that statute."

**Windbreak not a Nuisance—Overhanging Branches May be Cut—Right to Use Land to Boundary Line.**—S., Paw Paw, Mich.—A and B own adjoining land. On A's land two to four feet from division line is a row of spruce trees 30 to 40 feet

high. This hedge was set out for a wind-break 20 years ago. A has kept up his share of line fence, but B has not, removing part of it entirely. B now wants to build a new fence, but the low branches of trees of hedge are in the way. B also claims that hedge renders worthless a strip of his land. 1. Can B compel A to cut down the trees?—No. Whether the maintenance of a hedge as a windbreak is a nuisance which may be abated and for which damages may be had, is an unsettled question in Michigan. In some states such a hedge is regarded as an agent of good husbandry. If a hedge may be abated why not shade trees or adjoining timber? We are of the opinion that a court would neither direct its removal nor give damages for its existence. 2. Can B compel A to remove branches which have overgrown his land?—Yes. B may cut off the branches up to line, or he may sue for damages. He may not cut the branches beyond the extent to which they overhang his soil. 3. Does it make any difference whether one or both parties came into possession of the land after the hedge was planted?—No. 4. If a land owner sets trees near his division line without the written consent of the opposite owner, can the latter, after a period of years, compel the former to remove them?—No. Lapse of time is unimportant, as is written consent. You may plant trees on your land wherever you please, but adjoining owner may cut overhanging branches up to line, or sue for damages suffered. Roots projecting into another's soil are nuisances, which may be abated if actual damage is suffered; the tree, however, must not be deliberately killed. The principle governing the matter is the right to enjoy the use of your lands to the boundary line with indefinite extent upward and downward.

## The Markets.

### WHEAT.

The market has become so excited by the heavy purchases of foreigners, and the activity of speculators, that prices go up and down in the most surprising manner. It is simply impossible to predicate what the future of the market will be, but one thing is certain, it is a good time for holders to sell. Leiter is said to have sold 2,000,000 bushels to French dealers at \$1.47, and May wheat closed in Chicago at \$1.50. Paris wheat declined when the duty was taken off Thursday, but advanced again equal to 5c per bu. with a wild and excited market. Liverpool keeps steadily advancing, on Thursday the advance being sensational.

The following table exhibits the daily closing sales of spot wheat in this market from April 11 to May 5, inclusive:

	No. 1	No. 2	No. 3
	White.	Red.	Red.
April 11.....	94	95 1/2	92
" 12.....	95	96 1/2	93 1/4
" 13.....	95 1/2	97 1/2	93 1/2
" 14.....	96	98	94 1/4
" 15.....	96 1/2	98 1/2	94 1/2
" 16.....	96 1/2	98 1/2	95
" 18.....	97	98 1/2	95
" 19.....	97 1/2	99 1/2	96
" 20.....	98	100 1/2	97
" 21.....	102	104	100
" 22.....	102	104	100
" 23.....	103	105	101
" 25.....	105	107	103
" 26.....	108	109	105
" 27.....	107 1/2	109 1/2	106
" 28.....	110	111	107
" 29.....	110	109 1/2	106 1/2
May 2.....	110 1/2	112	107
" 3.....	110	111 1/2	107
" 4.....	115	120	113
" 5.....	120	129	118

The following is the record of the closing prices on the various deals in futures each day during the week:

	May.	July.	Aug.
Friday.....	109	93 1/4	88
Saturday.....	111	94 1/4	89 1/2
Monday.....	111	93 1/2	87
Tuesday.....	120	98	87
Wednesday.....	120	98	87
Thursday.....	129	101 1/4	91

The visible supply of wheat on Saturday last in the United States and Canada was 23,263,000 bushels, as compared with 25,914,000 bushels the previous week, and 34,412,000 bushels at the corresponding date last year. The decrease for the week was 2,651,000 bushels. For the past two weeks the decrease has been 5,891,000 bushels. Conditions are generally favorable for the growing crop throughout the Union, although here and there sections report a bad outlook. The crop will be light in California owing to drought.

A good deal of wheat is coming from the Indies, and is taken by continental countries. This is the last of the old crop, drawn out by the unexpectedly high prices.

The Modern Miller says: "The flour trade throughout the country is greatly improved in so far as domestic trade is concerned. Values in the south have advanced from 35c to 90c per barrel, with an unusually heavy demand. The southwest reports the same trade condition locally, with no export trade in sight. San Francisco advices report an advance of 50c on flour and 12 1/2c on wheat, with an improved demand."

While France, in order to help out her poor crops, took from us 17,533,056 bu of wheat in the eight months ending February 28, as compared with only 208,522 bu for the same period a year ago, she imported of our wheat flour only 602 bbls, against 408 bbls. The amount paid for the wheat was \$16,895,697, or an average of 96.3c per bu. This is an increase of 25.8c per bu over the figure for 1896-7, which came out at 70.5c, the value having been \$11,512.—New York Stockholder.

The decrease in the visible supply was unexpectedly heavy, and had something to do with advancing prices.

The action of the French government in taking off the duty on wheat will help the market materially.

### DAIRY PRODUCTS.

#### BUTTER.

The butter market has suffered from an over-supply the past week, and there has been a decided reduction in values. Both creamery and dairy have been affected, and at present the market looks very unfavorable for sellers. Quotations are as follows: Creamery, 17@18c; prime dairy,

14@16c; fair to good, 13@14c; common, 11@12c; low grades, 8@9c. At Chicago there has also been a considerable decline, and Thursday the market ruled quiet at the following range: Creameries, extras, 16c; firsts, 15@15 1/2c; seconds, 13@14c. Dairies, extras, 15c; firsts, 13@14c; seconds, 12@12 1/2c. Ladies, extras, 13@13 1/2c. Packing stock, 1 1/2@12c; roll butter, fresh, 11 1/2c. The New York market is quoted steady with very little change in values since a week ago. Quotations in the market on Tuesday were as follows: Creamery Western, extras, per lb. 17c; do firsts, 16@16 1/2c; do thirds to seconds, 14 1/2@15 1/2c; do State, fancy, 17c; do firsts, 16@16 1/2c; do thirds to seconds, 14 1/2@15 1/2c; State dairy, half firkin tubs, fancy, 16@16 1/2c; do Welsh tubs, fancy, 16c; dairy tubs, firsts, 15@15 1/2c; do thirds to seconds, 14@14 1/2c; imitation creamery, extras, 15 1/2c; do seconds to firsts, 14 1/2@15c; factory, firsts, 14 1/2c; do seconds, 14c; do lower grades, 12 1/2@13 1/2c.

#### CHEESE.

No change has taken place in cheese prices in this market, and trade is quiet at a range of 10@10 1/2c for best full creams. There does not seem to be much chance for any improvement at present. At Chicago the market is quoted quiet, steady and unchanged. The demand is moderate and the trade is devoid of features of interest. Quotations on Thursday were as follows: Young Americans, 7 1/2@9 1/4c; twins, 7 1/2@8c; cheddars, 6 1/2@7 1/2c; Swiss, 11 1/2@13c; limburger, 7@12c; brick, 8@11c. The New York market is neither so active nor so firm as a week ago. Exporters have not bought so liberally as last week, as the Liverpool market has declined, and a further drop is feared. Quotations at the close on Thursday were as follows: Large choice, 8 1/2@8 3/4c; small choice, 8 1/4@8 1/2c; light skims, 5 1/2@6c; part skims, 4 1/2@5 1/2c; full skims, 2@3c.

The Liverpool market is reported dull at 4 1/2c per cwt for the finest white, and 4 1/4c for the finest colored American cheese. These quotations are regarded as too high to be maintained.

### DETROIT PRODUCE MARKET.

Detroit, May 5, 1898.

**FLOUR.**—Quotations on jobbers' lots in barrels are as follows:

Straights.....	\$5 90
Clear.....	5 75
Patent Michigan.....	6 10
Low Grade.....	5 00
Rye.....	4 25
Granulated Corn Meal.....	2 00

**CORN.**—The visible supply of this grain on Saturday last in the United States and Canada was 27,044,000 bu as compared with 31,649,000 bu the previous week, and 16,977,000 bu at the corresponding date in 1897. Quotations in this market are as follows: No 2, 36c; No 3, 35 1/2c; No 2 yellow, 37c; No 3 yellow, 36 1/2c per bu. Market firm.

**OATS.**—The visible supply of this grain in the United States and Canada on Saturday last was 11,218,000 bu, as compared with 11,775,000 bu the previous week, and 11,722,000 bu at the corresponding date in 1897. Quotations are as follows: No 2 white, 32 1/2c; No 3 white, 32c per bu.

**BARLEY.**—The visible supply of this grain in the United States and Canada on Saturday last was 2,830,000 bu, as compared with 2,860,000 bu in the previous week, and 3,195,000 bu at the corresponding date in 1897. Market has advanced. No 2 has sold up to 70c per bu, and is firm.

**BAKLEY.**—The visible supply of this grain on Saturday last was 841,000 bu, as compared with 844,000 bu the previous week, and 2,294,000 bu at the corresponding date in 1897. Market unchanged; quoted at 85c per cwt.

**FEED.**—Jobbing quotations on carload lots are as follows: Bran and coarse middlings, \$14; fine middlings, \$15; cracked corn, \$15; coarse corn meal, \$13; corn and oat chop, \$13 per ton.

**CLOVERSEED.**—Prime quoted at \$3.05; No 2 at \$2.75 per bu.

**BEANS.**—Selling at \$1.13 per bu for spot, June and July delivery.

**EGGS.**—Selling at 10@10 1/2c per doz for fresh receipts.

**POULTRY.**—Live chickens, 8@8 1/2c; live fowls, 7 1/2@8c; live ducks, 1 1/2@2c; live geese, 7 1/2@8c; live turkeys, 10@11c per lb.

**TALLOW.**—Quoted at 3 1/4@3 1/2c per lb.

**HAY.**—Choice timothy quoted at \$8 per ton for baled.

**ADD BUFFALO.**—Geo CABBAGE.—Quoted at \$1 per bbl for old; new, \$1.50@1.75 per crate.

**DRIP FRUITS.**—Evaporated apples, 8 1/2@9c; evaporated peaches, 10@12c; dried apples, 4 1/2@5c per lb.

**APPLES.**—Selling at \$3@3.50 per bbl. for fair to good, and \$3.75@4 for fancy.

**MAPLE SUGAR.**—Pure quoted at 10@11c per lb; mixed, 8@9c per lb.

**HONEY.**—Quoted at 9@11c per lb. for ordinary to best.

**ONIONS.**—Quiet and steady at 35@40c per bu.

**POTATOES.**—Market firm and higher. Now selling at 85@90c in car lots. At Chicago quotations are 68@82c per bu.

**HIDES.**—Market steady and unchanged. Quotations are as follows: No. 1 green, 7c; No. 2 green, 6c; No. 1 cured, 8c; No. 2 cured, 7c; No. 1 green calf, 9c; No. 2 green calf, 7 1/2c; No. 1 kip, 8c; No. 2 kip, 6 1/2c; sheepskins, as to wool, 90c@1.25; shearings, 12@20c.

**COFFEE.**—Quotations are as follows: Roasted Rio, ordinary 9c, fair 11c; Santos, good 14c, choice 18c; Maracabo, 20@25c; Java, 26@30c; Mocha, 28@32c; package coffee sold on the equality plan on basis of \$10, less \$1.50 per 100-lb case in New York.

**PROVISIONS.**—Market steady and unchanged. Quotations are as follows: Mess pork, \$10.75 per bbl; short cut mess, \$11.25; short clear, \$10.75; compound lard, 4 1/4c; family lard, 5 1/4c; kettle lard, 6 1/2c; smoked hams, 8 1/4@8 1/2c; bacon, 8 1/2@8 3/4c; shoulders, 5 1/4c; picnic hams, 6c; extra mess beef, 9c; plate beef, 8 1/2c.

**OILS.**—Lined oil has advanced; turpentine has declined. Quotations are as follows: Raw linseed, 43c; boiled linseed, 45c per gal, less 1c for cash in ten days; extra lard oil, 52c; No 1 lard oil, 33c; water white kerosene, 8 1/4c; fancy grade, 11 1/2c; deodorized stove gasoline, 7 1/2c; turpentine, 34c per gal in bbl lots.

**HARDWARE.**—No changes have occurred since a week ago. Latest quotations are as follows: Wire nails, \$1.60; steel cut nails, \$1.55 per cwt, new card; axes, single bit, 16c; double bit, 18c; bronze, \$8.50; single bit, solid steel, \$6; double bit, solid steel, \$9.50 per doz; bar iron, \$1.35; carriage bolts, 75c per cent off list; tire bolts, 70 and 10 per cent off list;

painted barbed wire, \$1.65; galvanized, \$1.95 per cwt; single and double strength glass, 85 and 5 per cent off new list, sheet iron, No. 24, \$2.50 per cwt; galvanized, 75 and 10 per cent off list; No. 9 annealed wire, \$1.45 rates.

### DETROIT LIVE STOCK MARKET.

#### Michigan Central Stock Yards.

Thursday, May 5, 1898.

#### CATTLE.

Receipts Thursday, 687; through, 250; on sale, 437, as compared with 314 one week ago. The quality averaged about the same. Market active and about steady for good steers; fair to good butcher cows, strong to shade higher. \$4.55 was top price to-day for 25 steers av 1,056 lbs, and 8 av 990 lbs, but the bulk changed hands at prices ranging from \$3.40 to \$4.40; old to good fat cows, \$2.60@3.75; bulls, \$3.00@3.50; stockers, \$3.50@4.00. Veal Calves—Receipts, 183; one week ago, 199; active but lower; sales ranged from \$4.00@5.00 per 100 lbs, mostly \$4.50@4.85. Milch cows and springers active at \$30.00@50.00 each.

H H Howe sold Mich Beef Co 25 good butcher steers av 1,056 at \$4.55.

C Stuckey sold same 17 steers av 1,209 at \$4.50.

Bergen & T sold same 21 steers av 818 at \$4.40 and a fat cow to Black weighing 1,320 at \$3.75.

Dunlavy & R sold Fitzpatrick 3 mixed butchers av 776 at \$2.90.

Mayer sold Black 3 fat cows av 1,043 at \$3.40 and 3 steers and heifers av 1,090 at \$4.00.

M. Hall sold Mich Beef Co 22 steers av 1,070 at \$4.50.

Adams sold Sullivan 2 steers av 630 at \$4.00 and 3 cows to Caplis & Co av 1,136 at \$3.50.

Lomason sold Black 12 steers and heifers av 876 at \$4.40 and 2 cows to Caplis & Co av 1,160 at \$3.75.

Baker sold same 2 steers av 885 at \$4.35 and 3 cows av 1,083 at \$3.60.

Messmore sold Fitzpatrick 6 steers av 946 at \$4.50 and 4 cows av 1,055 at \$3.65.

Spicer & M sold same 6 cows av 1,050 at \$3.00.

Korff sold Caplis & Co 10 mixed butchers av 1,034 at \$3.50.

Reed sold Mich Beef Co 2 (cow and bull) av 1,140 at \$3.25.

Belhimer sold Fitzpatrick 6 steers and heifers av 891 at \$4.15 and 3 fat cows av 1,065 at \$3.75.

Clark sold same 2 do av 1,075 at \$3.50 and 3 mixed av 1,060 at \$3.75.

Horan sold Caplis & Co 2 steers av 899 at \$4.35 and 2 cows av 1,000 at \$2.60.

Robb sold same 3 mixed butchers av 916 at \$3.25 and 2 stockers to Sullivan av 590 at \$3.50.

Downey sold Black 2 cows av 990 at \$3.40 and 4 steers to Fitzpatrick av 947 at \$4.37 1/2.

McHugh sold Nanguin 6 steers av 1,188 at \$4.50.

Clark sold Sullivan 2 stockers av 545 at \$4.00.

Dunlavy & R sold Mich Beef Co 3 steers av 1,060 at \$4.50.

McMullen sold same 2 bulls av 700 at \$3.50 and 2 heifers av \$50 at \$4.00.

Ansty sold same 3 steers and heifers av 796 at \$4.00.

Dunning sold McDonald 33 stockers av 745 at \$3.95.

Roe & Holmes sold J Robinson 29 steers and heifers av 819 at \$4.40, 3 fat cows av 1,040 at \$3.75, 3 mixed butchers av 916 at \$3.50, 2 do av 940 at \$3.75, 2 do av 815 at \$3.00 and 2 heifers av \$59 at \$2.60.

2 do av 750 at \$3.00 and 2 heifers av \$59 at \$2.60, 8 steers to Fitzpatrick av 990 at \$4.55, 2 heifers av 640 at \$4.20 and 10 mixed butchers to Mich Beef Co av 939 at \$3.50.

Patrick sold Caplis & Co 4 fat cows av 1,200 at \$3.50 and a heifer weighing 920 at \$4.50.

Emerson sold Mich Beef Co 5 steers av 946 at \$4.40.

Nixon & McM sold same 14 steers and heifers av 883 at \$4.30.

Oversmith sold Black 4 steers av 982 at \$4.40, a cow weighing 750 at \$3.00 and 13 stockers to Sullivan av 473 at \$3.55.

Watson sold Mich Beef Co 10 mixed butchers av 950 at \$3.65 and 8 steers and heifers av 943 at \$3.35.

Gabett sold same 5 steers av 1,000 at \$4.40.

Robb sold Caplis & Co 5 steers av 1,176 at \$4.50.

Sweet & N sold Black 7 steers av 923 at \$4.50 and 2 cows av 1,090 at \$3.50.

Ackley sold Caplis & Co 6 heifers av 1,110 at \$4.30 and 7 mixed butchers av 1,021 at \$3.40.

Spicer & M sold Kammen 3 cows av 990 at \$3.30, 2 mixed av 820 at \$3.20, 2 cows to Fitzpatrick av 1,140 at \$3.90, 11 steers to Mason av 616 at \$3.90, 6 do av 516 at \$3.90 and 1 weighing 300 at \$3.50.

#### SHEEP AND LAMBS.

Receipts Thursday, 377; one week ago, 923. Market active; the few here sold early at strong last week's prices. Range of prices: \$3.70@4.50; culls and commons, \$2.50@3.00.

Burden sold Fitzpatrick 72 mixed av 73 at \$4.15.

Spicer & M sold same 15 mixed av 106 at \$4.50.

Sprague sold Young 49 mixed av 92 at \$4.35.

Hackett sold Monaghan 18 mixed av 75 at \$4.00 and 6 lambs av 41 at \$5.25.

Nixon & McM sold Fitzpatrick 67 mixed av 105 at \$4.50.



Spicer & M sold same 18 pigs av 94 and 18 av 98 at \$3.60.  
Haller sold Hammond, S & Co 64 av 160 at \$3.90.  
Davies sold same 77 av 156 at \$3.90.  
Ackley sold same 34 av 191 at \$3.85.  
Kalahan sold same 53 av 172 at \$3.92½.  
Dunlavy sold same 35 av 183 at \$3.95.  
Lomason sold same 27 av 196 at \$3.90.  
Pinkney sold same 95 av 168 at \$3.90.  
J McMullen sold same 136 av 152 at \$3.90.  
Nixon & McMill sold Hammond, S & Co 155 av 168 at \$3.95.  
Watson sold same 96 av 184 at \$3.90.  
Baker sold same 67 av 168 at \$3.90.  
Hoover sold same 114 av 158 at \$3.90.  
Sly sold same 31 av 168 at \$3.90.  
Sweet & N sold same 106 av 159 at \$3.90.  
Spicer & M sold same 51 av 196 and 68 av 192 at \$3.92½, 68 av 174 and 51 av 181 at \$3.90.  
Henderson sold Parker, Webb & Co 60 av 178 at \$3.95 and 89 av 150 at \$3.90.  
Roe & Holmes sold same 58 av 152 and 160 av 161 at \$3.90.  
McGee sold same 59 av 208 at \$3.93.  
Stoll & Co sold same 72 av 191 at \$3.95.  
Clark sold same 56 av 164 at \$3.92½.  
Robb sold same 38 av 184 at \$3.90.  
Roe & Holmes sold same 74 av 197 and 59 av 164 at \$3.90.  
Dillon sold same 82 av 177 at \$3.90.  
Roe & Holmes sold same 101 av 168 and 31 av 203 at \$3.90.

Friday, May 6, 1898.

## CATTLE.

Receipts, Friday, 288; one week ago, 276. Market active and strong to 10c higher. Top price to-day, \$4.70 for 15 choice steers av 1,055 lbs, and \$4.60 for 19 av 1,260 lbs; balance as noted. Stockers steady. Veal calves—Receipts, 65; one week ago, 78; higher; tops brought \$5.25. Milch cows and springers steady; not many good fresh young cows here.  
Nott sold Black 5 good butcher steers av 926 at \$4.60, and a fat cow weighing 1,280 at \$4.00.  
Harger sold Mich Beef Co 15 choice steers av 1,055 at \$4.70, a stocker to Sullivan weighing 550 at \$3.75, and a cow weighing 950 at \$3.25.  
Richmond sold Black 4 fat cows av 1,140 at \$3.50, 1 do weighing 1,200 at \$4.00, a heifer weighing 680 at \$4.25, and 2 stockers to Sullivan av 625 at \$4.00.  
McMullen sold Sullivan 25 steers av 1,090 at \$4.50.  
Roberts & S sold Mich Beef Co 6 mixed butchers av 955 at \$3.25, and 2 cows av 1,075 at \$3.40.  
Dennis sold Mason 3 steers av 1,226 at \$4.50.  
Luckie sold Moore a bull weighing 1,030 at \$3.50, and 11 steers to Sullivan av 1,045 at \$4.57½.  
Judson sold Sullivan 19 steers av 974 at \$4.40, 19 steers and heifers av 974 at \$4.40, and a cow weighing 850 at \$3.50.  
McLaren sold Black 4 mixed butchers av 1,052 at \$4.00, and 6 steers to Sullivan av 1,311 at \$4.65.  
Brown sold Sullivan 4 steers av 1,157 at \$4.40.  
Bullen sold Mich Beef Co 2 cows av 1,085 at \$4.00, and 23 steers av 873 at \$4.40.  
Smith sold Schleicher 3 steers av 1,063 at \$4.50.  
Van Buskirk sold Caplis & Co a fat cow weighing 1,100 at \$3.75, and a steer weighing 1,200 at \$4.75.  
Lowrey sold Mich Beef Co 2 mixed av 920 at \$3.70, 4 do to Caplis & Co av 725 at \$3.25, and 25 steers and heifers av 856 at \$4.20.  
Fox & Bishop sold Black 17 steers and heifers av 919 at \$4.50, a bull to Caplis & Co weighing 950 at \$3.60, and 4 cows av 882 at \$3.60.  
Miller sold Caplis & Co 9 mixed butchers av 1,024 at \$3.60.  
Casey sold same 5 steers av 944 at \$4.35, and 5 cows av 1,148 at \$3.85.  
Purdy sold Haviland 7 stockers av 364 at \$4.00.

## SHEEP AND LAMBS.

Receipts, Friday, 358; one week ago, 654. Market active; clipped lambs strong to 5c higher. Range of prices: Clipped lambs, \$4.40 to \$4.70; fair to good mixed butchers, \$3.75 to \$4.40; culls and common, \$2.50 to \$3.60.  
Jedele sold Sullivan Beef Co 12 mixed butchers av 90 at \$3.80.  
Dennis sold same 52 clipped lambs av 76 at \$4.50.  
Fox & Bishop sold Hiser 7 mixed av 80 at \$4.25.  
Bullen sold Mich Beef Co 104 clipped lambs av 94 at \$4.65.  
McMullen sold Robinson 50 clipped lambs av 82 at \$4.70.  
Lowrey sold Fitzpatrick 97 mixed av 104 at \$4.35.  
Leach sold Sullivan Beef Co 27 mixed av 73 at \$3.75.  
Aldrich & H sold Fitzpatrick 14 mixed av 77 at \$4.30.

## HOGS.

Receipts, Friday, 1,333; one week ago, 3,482. Market active and 5c higher than above quotations; bulk sold at \$3.95 to \$4.00; all sold, closing firm.  
Bird sold Sullivan 21 av 155 at \$3.95.  
Eddy sold same 78 av 195, and 102 av 178 at \$3.90.  
Richmond sold same 63 av 158 at \$3.90.  
Brewer & B sold same 93 av 150 at \$3.95.  
Heeny sold same 32 av 156 at \$3.90.  
McMullen sold same 49 av 156, and 39 av 166 at \$3.95.  
Lowrey sold same 70 av 169 at \$3.90.  
White sold same 60 av 162 at \$3.95.  
Snider sold same 58 av 138 at \$3.95, and 16 pigs av 86 at \$3.55.  
Roe & Holmes sold same 40 pigs av 102 at \$3.85, and 75 av 93 at \$3.55.  
Miller sold same 49 av 159 at \$3.95.  
Lovell sold same 52 av 109 at \$3.70.  
Fox & Bishop sold same 36 av 103 at \$3.60.  
Bullen sold same 23 pigs av 99 at \$3.60.  
Brown & Young sold Parker, Webb & Co 38 av 198 at \$4.00.  
Leidel sold same 75 av 162 at \$4.00.  
Leach sold same 18 av 145 at \$3.85.  
Nott sold same 70 av 159 at \$4.00.  
McLaren sold same 39 av 191 at \$3.97½.  
Wilson sold same 14 av 151 at \$3.90.  
Allen sold same 70 av 155 at \$4.00.  
Fox & Bishop sold same 127 av 169, and 87 av 174 at \$4.00.  
Casey sold same 81 av 159 at \$4.00.  
F W Horner sold Hammond, S & Co 154 av 162 at \$3.97½.  
Dennis sold same 120 av 181 at \$3.90.  
Roe & Holmes sold same 53 av 159, and 127 av 156 at \$4.00.  
Discher sold same 59 av 156 at \$4.00.  
Hauser sold same 116 av 181 at \$4.00.  
McLaughry sold same 61 av 180 at \$4.00.  
Luckey sold same 152 av 145 at \$3.95.  
Harger sold same 51 av 143 at \$3.90.  
Jedele sold same 69 av 176 at \$3.95.

Bullen sold same 87 av 186 at \$3.95.  
Evans sold same 18 av 278 at \$3.90.  
Osmus sold same 14 av 213 at \$3.90.

## OUR BUFFALO LETTER.

East Buffalo, May 5, 1898.

Cattle.—Receipts of cattle on Monday last were 4,752, as compared with 4,004 the same day the previous week, and shipments were 3,740, as compared with 3,344 for the same day the previous week. The market on Monday opened strong and higher for all grades except heavy fat and coarse steers, which showed no improvement. Light medium handy weight steers, fat and well finished, ruled the strongest. Butchers' cattle of all descriptions were firm and active. Stockers and feeders were in light supply, and the market ruled fairly active and steady. Prime heavy steers sold at \$5.65; good to choice fat steers, \$4.70 to \$4.90; fat smooth butchers' steers, \$4.50 to \$4.70; green thin steers to fair half fat, \$3.90 to \$4.50; heifers, \$3.50 to \$4.40; cows, \$2.50 to \$4.35; feeding steers, fair to best, \$3.50 to \$4.35; stockers, \$3.15 to \$4.00. Heavy export steers were not in demand, and a good many were carried over. The market closed rather easy. Since Monday the market has held steady to firm on all desirable grades of cattle. Quotations on Wednesday were as follows: Export and Shipping Steers.—Prime to extra choice finished steers 1400 to 1450 lbs, \$5.10 to \$5.15; prime to choice steers 1300 to 1400 lbs, \$5.00 to \$5.05; good to choice fat steers 1200 to 1300 lbs, \$4.80 to \$4.90; good to choice fat smooth steers 1050 to 1250 lbs, \$4.70 to \$4.80; green coarse and rough fat steers 1050 to 1400 lbs, \$4.00 to \$4.50. Butchers' Native Cattle.—Fat smooth dry fat steers 1050 to 1150 lbs, \$4.70 to \$4.90; fat smooth dry fat light fat steers 900 to 1000 lbs, \$4.50 to \$4.65; light half-fat steers, \$4.25 to \$4.50; green steers thin half-fattened 1000 to 1300 lbs, \$3.90 to \$4.40; fair to good fat heifers, \$3.90 to \$4.40; fair to good smooth fat heifers, \$4.40 to \$4.70; light thin half-fat heifers, \$3.50 to \$3.90; fair to good mixed butchers' stock, \$3.50 to \$4.40; mixed lots fair to choice quality fat cows and heifers, \$3.75 to \$4.35; good smooth well fattened butcher cows, \$3.90 to \$4.15; fair to good butcher cows, \$3.25 to \$3.75; common old shelly cows, \$2.50 to \$3.15. Native Stockers, Feeders, Bulls and Oxen.—Feeding steers, good style weight and extra quality, \$4.20 to \$4.35; feeding steers common to only fair quality, \$3.90 to \$4.10; good quality yearling stock steers and calves, \$4.10 to \$4.90; stock heifers common to choice, \$3.15 to \$3.50; stock steers cull grades and throw outs, \$3.75 to \$4.00; export weight bulls, fat and smooth, \$4.85 to \$4.90; good fat smooth butchers' bulls, \$3.60 to \$3.80; fair to good sausage bulls, \$3.40 to \$3.65; thin old and common bulls, \$3.00 to \$3.35; stock bulls common to extra, \$2.75 to \$3.40; fat smooth young oxen to good lots fit for export, \$4.20 to \$4.50; fair to fairly good partly fattened young oxen, \$3.50 to \$4.15; old common and poor oxen, \$2.25 to \$3.40.  
Thursday the market was steady for good handy cattle, but dull for heavy or coarse stuff.

Sheep and Lambs.—Receipts Monday were 13,800, as compared with 19,000 the previous Monday; shipments were 9,000, as compared with 11,500 for the same day the previous week. The market on Monday opened up rather slow, with prices about steady with the close of the week. In lambs a few handy weights, running about 70 to 76 lbs, sold at \$5.00, but the general run of sales of the choice to best lambs was at \$4.85 to \$4.95, with good ones, \$4.75 to \$4.80; culls to fairly good, \$4.00 to \$4.65; 4.70; heavy lambs were in only fair demand, a few on the fancy wether order sold above \$4.40; fat ewes not quotable at over \$4.20 to \$4.30; choice to prime handy wether sheep and yearlings sold at \$4.10 to \$4.20, but the bulk of the wethers went at \$3.90 to \$4.00, with fair to choice mixed sheep at \$3.65 to \$3.85. The close was steady, with most of the offerings sold. Since Monday the market has held fairly active, and steady to firm. Wednesday the market closed firm, with pens well cleared, at the following range: Clipped Lambs.—Choice to extra fresh clipped, \$4.90 to \$5.00; fair to good, \$4.70 to \$4.85; culls and common, \$3.15 to \$4.60; heavy clipped lambs, \$4.90 to \$4.95. Clipped Sheep.—Good to fancy wethers, \$3.80 to \$4.10; choice to extra handy mixed, \$3.50 to \$3.75; culls to good, \$2.75 to \$3.40; heavy native corn fed wether sheep of 110 to 125 lbs, \$3.60 to \$3.80. Wool Stock.—Fair to prime handy sheep, \$4.15 to \$4.25; cull and common sheep, \$3.25 to \$3.75; fair to fancy native lambs, \$3.25 to \$3.55; cull and common native lambs, \$4.75 to \$5.15.

Thursday the market ruled stronger; handy lambs, top, \$5.00 to \$5.10; others, \$4.15 to \$4.90; sheep, steady; handy wethers, \$4.10 to \$4.20; sheep, mixed, \$3.20 to \$4.10; heavy sheep, dull, \$3.75 to \$3.90.

Hogs.—Receipts of hogs on Monday last were 28,310, as compared with 20,900 for the same day the previous week; and shipments were 19,000, as compared with 12,700 for the same day the previous week. The market opened easier for yorkers and light grades, but closed stronger, and steady to firm on medium and heavy lots. The bulk of the yorkers sold at \$4.05 to \$4.07½; choice light medium grades, \$4.07½ to \$4.10; medium weights, \$4.15 to \$4.20; packing grades, \$4.10 to \$4.15; prime heavy, \$4.15 to \$4.20; pigs, \$3.00 to \$3.85. The market closed up strong, with the pens well cleared. The market since Monday has ruled quite active, and on Wednesday values were higher. Quotations closed at the following range: Good to choice yorkers, 170 to 185 lbs, \$4.20 to \$4.25; fair to good light yorkers, \$4.15 to \$4.20; mixed packers' grades, \$4.20 to \$4.25; medium weights, 220 to 240 lbs, \$4.20 to \$4.25; heavy hogs, 250 to 300 lbs, \$4.20 to \$4.30; roughs, common to choice, \$3.75 to \$3.90; pigs, fair to choice, \$3.80 to \$4.00.

Thursday the market ruled steady to strong, with a shade advance on some grades; yorkers, \$4.20 to \$4.22½; light, \$4.15 to \$4.17½; mediums, \$4.25; heavy, \$4.30; pigs, \$3.90 to \$4.00.

## CHICAGO.

Union Stock Yards, May 5, 1898.

Cattle.—Receipts for last week were 38,366 head, as compared with 36,613 the previous week, and 50,191 for the corresponding week in 1897. Receipts Monday were 19,920, as compared with 11,108 for the same day the previous week. With the heavy receipts it was expected cattle would sell lower, and some of the less desirable did; but the best native steers sold steady to strong at Friday's prices. A decline on branded and horned western cattle, however, was established. The best price of the day was \$5.25, paid for a load of prime native steers that averaged 1,395 lbs; they were bought for the eastern retail trade; several lots sold at \$5.10; dressed beef

operators and exporters paid around \$4.40 to \$4.95; horned and branded steers, when not right up to the standard, sold 10c lower than last week, but the best ruled steady. All other kinds about the same as last week. Up to and including Wednesday of this week receipts have been 36,401, as compared with 26,154 for the same days last week. With the big increase the market has held steady to strong on the best beef steers, a shade higher on fat cows and heifers, and very strong on stockers and feeders. Wednesday \$5.25 was top price for prime steers with most sales at \$5.05 to \$5.20; steers suitable for the dressed beef, shipping, or export trade, sold at \$4.80 to \$4.90; some prime branded westerns sold as high as \$4.85; others not so good, \$4.60 to \$4.70. Fat cows and heifers as high as any time during the past 15 days, the range being \$2.25 to \$4.60; stockers sold up to \$4.90 and bulls up to \$3.80. Calves sold up to \$6 for best.

Estimated receipts Thursday, 10,000; market steady and unchanged.

Sheep and Lambs.—Receipts last week were 74,410, as compared with 54,346 for the previous week, and 83,187 for the corresponding week in 1897. The market opened with 19,001 on sale, as compared with 15,748 the same day last week. The increased receipts did not injure the market to any great extent, as it ruled fairly active, with prices about steady with those of Friday. Heavy sheep and lambs were the hardest to sell. Buyers prefer clipped sheep, as the dipping season has opened, and dealers say the dipping injures the wool and detracts from the appearance of the sheep. A big lot of fat, clipped ewes sold at \$3.85, another fat, clipped sheep at \$4.42½; yearlings sold around \$4.50. Heavy clipped lambs sold at \$4.30 to \$4.50; light clipped, \$4.60 to \$4.65; common native lambs in wool sold at \$4.75 to \$5.15; the best native lambs in fleece, \$5.30 to \$5.40; light Colorados \$5.50. A few spring lambs sold at \$7 per hundred. Up to and including Wednesday of this week receipts were 58,022, as compared with 49,415 for the same days last week. With the decrease in receipts the market on Wednesday ruled active, with a slight upturn on nice, handy, weight clipped sheep and lambs, but those carrying the fleece were rather slow and barely steady. Big, heavy clipped sheep sold at \$4.10 to \$4.15; handy and light weights, \$4.25 to \$4.50. Heavy clipped lambs, \$4.40 to \$4.45; light and medium weights, \$4.50 to \$4.95. Native lambs, carrying the fleece, \$5.65 to \$5.75; top Colorados, \$5.40; a few at \$5.35, and a fancy light-weight sort might make \$5.50.  
Thursday estimated receipts were 14,000; market steady.

Hogs.—Receipts last week were 200,236, as compared with 160,043 the previous week, and 139,362 for the corresponding date in 1897. Offerings on Monday were 38,489 as compared with 44,523 the same day last week, a decrease of 5,834 head. The market opened active at an advance of 5c over the close of the week, but later this advance was lost. Rough and common lots sold at \$3.80 to \$3.85; prime packers and good mixed, \$3.95 to \$4.05; prime mediums, butcher weights and shippers, \$4.05 to \$4.17½; one or two loads at \$4.20. Light mixed, the syndicate sort, 120 up to 200 lbs, to round up at an average of 155 lbs, sold at \$3.92½ to \$4; prime assorted light, \$4.00 to \$4.05; pigs under 100 lbs, \$3.25. Some reports are quoting pigs at \$3.70 to \$3.80, but nothing has sold at over \$3.25 in a week. Up to and including Wednesday of this week receipts have been 95,813, as compared with 117,101 for the same days last week. On Wednesday the demand showed considerable improvement, helped up by the lighter arrivals and the better quality of the hogs offering. A slight advance at the opening was lost later in the day, and the market closed easy at the following range: Rough and common, \$3.75 to \$3.85; prime packers and good mixed, \$3.95 to \$4.10; prime mediums, butcher weights and shippers, \$4.10 to \$4.17½, and it was currently reported one load sold at \$4.20. Strictly selected light, \$4.40 to \$4.45; syndicate light mixed, \$3.95; pigs, \$3.10 to \$3.25.

Estimated receipts Thursday, 38,000; market fair to shade higher; light, \$3.85 to \$4.07½; mixed, \$3.95 to \$4.15; heavy, \$3.95 to \$4.20; rough, \$3.95 to \$4.00.

## FORESTRY PROTECTION.

The Department of Agriculture is to issue a bulletin soon treating of the preservation of forest lands and the rehabilitation of old cut-over lands. The bulletin will present the report of an expert on the forest conditions and forestry interests of Wisconsin with a discussion of proper forestry methods by the chief of the Division of Forestry, B. E. Fernow. The showing is that there are several million acres of land in northern Wisconsin from which the timber has been cut, and which are too poor for profitable agriculture, which should be purchased by the state, at the nominal figure of a few cents an acre at which they are offered by their owners and regrown again to forests, thus creating future wealth for the state. Such practices are largely followed in European countries where the governments buy up old worn out land and establish them in forests, thus improving surrounding climatic conditions, forming a source of future revenue and improving the land. France alone, it is stated, has spent in the neighborhood of \$40,000,000 toward reforesting dunes, mountain sides and waste lands.

In this connection it is interesting to note that the State of New York promises to be the first to enter upon a rational forestry policy. It spent \$1,000,000 last year for the purchase of forest land in addition to the 700,000 acres it owned before, and this year it has voted another half million for a like purpose. Governor Black has also signed a bill which sets aside 30,000 acres, under the direction of Cornell University, where a demonstration of

practical forestry methods is to be made, which may serve as a model for the management later of the entire state forest reserve. Mr. Fernow, of the Department of Agriculture, re-sion of Forestry to take charge of this signs his position as chief of the Division.

The President sent to the senate on Wednesday the names of eleven men to be made major-generals. Among them was that of Fitzhugh Lee. Eighteen nominations for brigadier-generals were also set in.

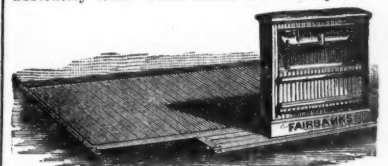
The richest prize captured thus far is the Spanish steel screw steamer Guido, which was taken off Cardenas, Cuba, last week, by the monitor Terror, assisted by the gunboat Machias. The vessel is 300 feet long and valued at \$400,000.

Wheat throughout this section is reported to be looking exceedingly well, the cool weather and frequent rains since the snow went off being just what was needed for it. Now if the price will keep up to a dollar or more until after another harvest, it will put many farmers in this part of Michigan on the easy seat once more.—Portland Observer.

Details concerning the battle fought in Manila harbor last Sunday morning are still wanting. Enough has been learned, however, to justify the belief that Commodore Dewey's fleet had the best of the argument, the latest reports indicating that the Spanish fleet was almost annihilated. It is also believed that Dewey has taken the city, although nothing official has been received, indicating either that the city, or at least the cable, is not yet in his possession, or that the cable has been cut. It has been decided to send the cruiser Charleston with two additional ships, loaded with troops and supplies, to reinforce the Asiatic squadron.

## STOCK SCALES.

No careful business farmer or stock feeder would think of getting along without reliable scales upon the farm. There are many times during the feeding season when scales may be used to advantage, such as ascertaining the gain being made by fattening cattle; and for one's own satisfaction it is a good plan to weigh out everything sold from the farm, whether it is grain or stock. A scale, like many other things, is worse than none at all unless it weighs accurately, hence we are glad to recommend the "Fairbanks" as being absolutely true. These scales are made by Fair-



banks, Morse & Co., Chicago. It is a fact well known to grain and stock buyers that a great many errors in weighing arise from an inaccurate counting of the weights on the counterpoise of the ordinary single or double beam scales. The "Fairbanks" compound stock scale beam entirely removes the possibility of error from such cause, as no loose weights are used; all the capacity is given on the beam. On a four-ton scale the main bar of this compound beam has a capacity of 6,000 pounds, three tons. The lower bar has a capacity of 2,000 pounds, this bar being intended as a tare beam to balance the weight of the stock rack, while at the end of the lower bar is a small auxiliary beam for recording the small weights. The main 6,000-lb. bar is graduated to 200-lb. notches, so that nothing finer can be weighed thereon, but the small auxiliary beam has a capacity of 200 pounds, and is graduated to 2-lb. notches. These two bars are used together in the recording of weights as follows:

After balancing the stock rack on the lower 2,000-lb. bar the poise on the main bar is run out to the farthest notch possible, without turning the beam, and by means of an automatic spring is held exactly in position at this notch, then the small 200-lb. beam is used to balance the load, and we find we have upon the main bar, say 4,800 lbs., while upon the small bar we have 72 lbs., a total of 4,872 lbs. The simplicity of this transaction, and its absolute accuracy are clearly apparent.

Another decided and material advantage of this compound beam, yet one which has probably occurred to but few stock buyers, is this: After a scale with the ordinary single or double beam has been in use any length of time, the longer the work, the loose weights, by reason of regular handling and careless throwing about, as well as frequently from the action of the rust, become clipped and lose considerable of their original weight. The ordinary 2,000-lb. weight belonging to a four-ton scale weighs exactly four pounds, so that after use and abuse it loses say even one-fifth of an ounce (this is conservative) of its weight. This one-fifth ounce represents about six pounds on the platform of the scale, or on an average load of three tons (employing three 2,000-lb. weights), the discrepancy would be over 18 lbs. on each draft. In the case of heavier scales where the 2,000-lb. weight weighs only two pounds, the discrepancy as above would be just doubled on the same draft, and increased proportionately on larger drafts. With these facts in mind it will be clearly seen that the "Fairbanks" scale fitted with the Fairbanks compound stock scale beam possesses such material advantages over the old style that, though costing but a trifle more, it is worth to the stock buyer many times more.

## WOOL TAGS.

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## Horticultural.

### FRUIT NOTES.

It seems strange that a fruit so easily grown as the quince is not more generally planted. Half a bushel of quinces to a bush is not a large yield, and we find it the most regular of all fruits in bearing, producing a crop every year. A bush in the corner of the garden, if it can have no better place, does not take much room, and its fruit will be welcome in the fall.

Complaint is sometimes made on account of suckers. We have had no trouble with them nor with the blight. Our plan is to scatter a pint of salt about each bush during the first of summer. We do not attach much importance to salt as a fertilizer, but it keeps down the weeds and possibly prevents sprouts from starting. At any rate there are neither weeds nor sprouts around the bushes. Very little pruning has been done, as not much has been needed.

Occasionally the practice of girdling to obtain early fruit is advocated. The peach is usually the victim. The fruit is of better color and possibly is improved in flavor, but is the practice to be commended? A wire band is placed on a branch and drawn tight enough to cut through the bark. Of course, that part of the tree dies after maturing the crop, so the fruit should be increased considerably in value to compensate for the loss. Forcing the fruit may be desirable in the South, but in the North the market is supplied by southern fruit long before that grown at home can possibly be made ready by girdling or any process short of a hot-house. Such fruit is not of a high quality, but it satisfies the public for the time being, and that is as much as the home-grown fruit would do. In regard to the main crop and late fruit there is obviously little if anything to be gained. A few days in time is of no great importance.

The girdling is done late in summer or early in the fall for the crop of the following year. If this forces the fruit it would seem reasonable to expect that the buds would be more than normally forward, and so be in danger of getting caught by the late frosts which frequently injure even the hardy varieties. But thus far we have not found a fruit grower who has any desire to try the method in this latitude, though the recommendation of some farm papers may induce many to consider the matter.

A novel experiment in artificial tree budding has been lately tried at the Wisconsin station. When the trees were set a root was cut off and a rubber tube attached to the stub, the other end of the tube being connected with a bottle which was fastened to a stake a little above the top of the tree. This pressure will drive the water into the tree, causing a circulation that is prompt in its effect. Some of the trees used in the experiment started to grow more than two weeks before others which were left to the natural course.

The experiment is interesting, even though it may not prove practical. It is at least worth trying in the case of valuable trees which have no roots enough for the top. Perhaps the bottle and tube would be more satisfactory than cutting back the top to correspond to the lack of root. So far as the experiment has gone it shows that a tree can be kept alive and growing until new roots are started, provided the trunk and roots are in a healthy condition, and that is all that is claimed for it.

All this applies to trees when first set out. It is good, so far as it goes, but it will be surprising if it does not go much further before the close of another year. Some one should try this scheme on large trees. Perhaps it may be feasible for irrigating them during some of the long drouths. The amount of water needed for a tree would be much smaller when applied directly in this way than when applied to the surface of the ground. Sometimes it is found necessary to draw barrels of water for the purpose of saving valuable trees. Only a small portion of this is ever taken up by the tree, but it must be applied so as to soak the dry earth before the tree is benefited. Possibly this new process would save trees at a cost of much less time and labor. Of course the bottle would hardly be sufficient for any except newly planted trees, but some other kind of receptacle for

the water could be easily devised.

The point to be kept in mind is that the water supply should be far enough above the surface of the ground so that the pressure will assist in the circulation. The roots will absorb water without the aid of the rootlets and so will branches when cut off and placed with the end in water, but they do not seem capable of taking up the large amount necessary for reaching the buds that are not near the source of supply. With this extra pressure the moisture may be forced as high as the tree, provided the reservoir is elevated that much.

This experiment may appear trivial to some, but it may be of considerable importance to others. There are varieties of trees which are difficult to transplant because the rootlets dry out the moment they are exposed to the atmosphere. The greatest precaution is necessary and even then the undertaking is risky. The trees do not throw out new rootlets readily and as a result they soon die. Some of the evergreens are good examples. They are desirable for lawns, but the difficulty in getting them to grow has frequently kept people from setting them, though after they have been started they may thrive well enough. If there is any way to help such trees along when they most need assistance it is certainly worth trying.

For the benefit of those who wish to try the experiment it may be well to add that clear rain water should be used. If a bottle is used there should be two tubes through the cork, one for attaching the feeding tube and the other extending far enough to come above the surface of the liquid when the bottle is inverted and in place. When the bottle is empty it is easily filled and replaced. Besides this little attention the expense of the experiment is small, only the cost of the rubber tube and the stake.

F. D. W.

### SUGGESTIONS FOR THE SMALL GARDEN.

From our Washington Correspondent.

The advantage of a garden so planted as to allow the bulk of the cultivation by horse power is unquestioned. With a good adjustable cultivator or horse hoe, the superior strength of the horse will suffice to do in a minute what a man can accomplish no better in fifteen minutes. In any event, even with the most thorough and satisfactory horse cultivation, there is always sufficient hand work to satisfy the most industrious. But such a plan of operation applies only to the farm, where there is comparatively plenty of land which can be set aside for the garden.

But the small garden is a necessity in many instances. One of the best features of America and American living among the great middle class, and a feature in marked contrast with the condition among the middle class of European countries, is the ability of thousands of workmen and small business men to own little pieces of land upon which they can grow many of the supplies for their tables. To such a class of citizens, the "hand garden" of course is the practicable one. Their ground supply is limited and their aim must be to get the ground as rich as possible and then crowd the greatest amount of growth into it, compensating for additional space by extra care and attention and additional cultivation.

In the preparation, laying out and planting of such a garden, head work will count for as much or for more than in the farm garden. It will take several years to get the garden into the finest growing condition. The best results cannot be expected the first year. Let us see what can be done with a half acre of moderately good ground, a lot, say 100x200 feet. Suppose it situated the narrow way north and south, that is, with the hundred feet sides facing north and south.

An excellent plan to commence with is to plant an evergreen hedge, say a Norway Spruce, along the north face and down the west side thirty or forty feet. This will cost a little something but when it is a few years old it will prove a most valuable windbreak and a splendid place behind which to grow some early things or have a hot-bed. Next to this hedge a row of dwarf fruit trees, say pears, would do well. Between these trees plant rhubarb. An objection made to hedges, by the way, is that their roots run out into the garden and take the moisture and nourishment needed for other growths. Obligate this by cutting a ditch a couple of feet inside the hedge,

cutting the roots and forcing the hedge to sustain itself from the other side. The dirt can be replaced again as fast as cut. This will not hurt the hedge. Next to the trees make an asparagus bed. As ground is limited, this better be planted in the old way as a bed, making it about three and a half feet in width so that the center can be reached from either side. For the planting of asparagus, the ground should be specially prepared and made very rich. The preparation of this bed will be a somewhat laborious task and there will be no yield the first year, but thereafter it will be one of the earliest spring vegetables and a product of great medicinal value. The abundant use of asparagus is a cure or at least an almost certain preventative against kidney disease. Year after year, with the bed kept in good condition it will yield its early spring contribution to the table. Each fall a top-dressing of a couple of inches of rotted manure or mould, free from weed seeds, should be spread upon the bed and in the spring the stalks will push up their sturdy heads, tender and succulent. But little less important as a spring medicine is rhubarb mentioned above. After it has served its purpose as a spring vegetable, let it grow up; then in the fall, break it down (do not cut it) and can the stalks. At that season the system does not crave acid, as fruits are plenty, but in the winter it will be found a wholesome and gratefully received addition to the table.

Next to the asparagus plant strawberries. There are several methods of planting and cultivating which will bring good results. They may be planted in beds with three rows in the bed and the plants a foot apart in the row. This plan, when they begin to run, will make the bed practically solid. If the gardener is likely to have considerable time to "tend" the garden, a very satisfactory method is to plant in hills. Plant in rows just far enough apart to be able to straddle easily, say two feet, and set a foot apart in the rows. Let the plant grow to about six or eight inches in diameter and keep the runners cut back beyond this. This method will be found to more nearly cover the ground than is at first supposed and both the yield of berries and their size will be very large. A three-year rotation will give the best results. Plant, for instance, in August or early September after a good rain. The plants will get a good start and will bear half a crop their first spring. The next September plant another plot. The second spring the first planting will bear a full crop and the second planting a half crop. Then spade under the first planting, which has borne a crop and a half and plant another bed. This will keep the berries up to their highest standard of yield and excellence and be found very satisfactory. Some discretion should be observed in planting early and late varieties, giving a good succession. Two hundred plants, or two rows the width of our garden, will be sufficient to supply an ordinary family.

Thus far we have utilized about thirty feet of the length of our garden. Now a good plan is to run a broad walk the entire width, cutting it into two sections and to plant on either side grapevines, making a trellis for them to run upon or tying them to stakes.

In the remaining section of the garden let the rows run the long way. On either side, if desired, a row of fruit trees can be planted, pears, peaches and apples, with a quince or two in some specially rich spot. Next to these should be rows of berries; black and raspberries, currants and gooseberries. These should be cultivated at least once in the spring with a horse cultivator. The rest of the ground is for annual vegetables and is supposed of course to be plowed and put in the best possible condition in the spring by horse power.

If the dimensions of this garden are cut exactly in half, enough still can be raised with proper attention to go far toward supplying a good-sized family with fresh vegetables throughout the spring, summer and fall months.

### SPRAYING TO PROTECT FRUITS.

Last week we gave formulas for the compounding of various insecticides and germicides to be used in spraying trees and plants to protect them against the attacks of insects and fungoid diseases. Below we give directions as to when and how these mixtures are to be applied.

In applying them the spray pump has been found the most efficacious as well as economical method. The next question is the time when these spraying compounds should be applied, and the particular ones to be used in each case.

To begin with the apple, the first spraying should be done just after the blossoms fall, and the spray used should be Bordeaux mixture, with the addition of Paris green or Londona purple, mixed as described last week. The spraying should be done once in two weeks for six or eight weeks. This is to combat attacks of the codling moth, whose eggs develop into the worm which renders so many apples worthless. It is the worst pest of the apple grower. This same spray is used to kill off the canker worm, whose presence can be readily observed. It should be applied once a week as long as any worms are to be seen. For plant lice spray with the kerosene emulsion as soon as the eggs begin to hatch. It must be done thoroughly, as many of the lice take shelter on the under side of the leaves.

For the pear the trees should be sprayed with Bordeaux mixture before the leaves start, making it quite strong, and this should be followed with another application after the blossoms fall. This is to combat the attacks of blight, and must be supplemented by carefully cutting out branches affected with the disease whenever they appear. The canker worm also attacks the pear, and the trees should be sprayed with Bordeaux mixture and Paris green as recommended for the apple. The attacks of the codling moth should be met as in the case of the apple. The pear slug is easily got rid of by spraying with Paris green and Bordeaux mixture, or dusting the trees with air-slacked lime. The bud moth should be fought by spraying with the Bordeaux mixture and Paris green just as the buds are opening. It will be seen that this combination of Bordeaux mixture and Paris green is efficacious in fighting both insect attacks and various fungoid diseases, and that in using it for one purpose is an effective remedy against several other pests and diseases.

For the peach, spraying with Bordeaux mixture just as the buds are swelling, and again after the blossoms fall, is recommended for leaf curl. Paris green and Bordeaux mixture are also recommended for attacks of the curculio, the applications to be made just after the blossoms fall; but we

(Continued on page 377)

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doubt the efficacy of the remedy against this vigorous and determined enemy of the fruit-grower, and think it safer to rely upon jarring and destroying the wormy fruit. Perhaps a combination of the two methods would be better than either one.

The plum is the fruit which suffers most from the attacks of the curculio, and what is said about that insect above is equally applicable to the plum, except that spraying with the Bordeaux mixture will aid in preventing or stopping attacks of rot and the shot hole fungus. For attacks of the latter, spray with Bordeaux mixture when the leaves are about half grown, and then at intervals of two or three weeks for six weeks. For rot spray with Bordeaux mixture when the buds begin to swell, then after the blossoms fall, and at intervals of three weeks until the fruit is full grown. Then spray once with the ammoniacal copper carbonate solution. All the mummified fruit should be gathered and destroyed. For black knot the only efficient remedy yet discovered is to cut off affected branches well back of the disease and burn them.

The cherry suffers from attacks of the green louse, or aphid, the slug, and the curculio. For the green louse use kerosene emulsion as soon as the insects are observed. The slug is got rid of by the use of Paris green and the Bordeaux mixture, as recommended in the case of the pear, or by dusting the trees with air slaked lime.

The grape-grower generally finds the black rot his worst enemy, and for years it was thought to be impossible to stop its ravages, once it got a good start in a vineyard, except by cutting out the affected vines and burning them. But it has been found that strong Bordeaux mixture, say 20 per cent stronger than the solution mentioned last week, applied before the buds start, and then a weaker solution, say 10 per cent weaker than the one ordinarily used, applied before the blossoms appear, and again after the fruit is formed, gives perfect protection from this disease. The leaf hopper can be met with kerosene emulsion, applied as soon as the insects appear. For the leaf roller, spray with Paris green and Bordeaux mixture, and gather and burn all dead leaves.

## The Poultry Yard.

For The Michigan Farmer.

### POULTRY COMMENTS.

The Indian Game is a variety of poultry that justly deserves to be more popular than it is. Without doubt its name has much to do with its want of appreciation by poultry raisers and farmers at large. Anything that suggests "games," as the name of these fowls does, is a candidate for unpopularity in the eyes of all, save a comparative few whose fancy runs to the excitement of the game pit. Although the Cornish Indian Game may be suggestive of cock-fighting, they are not a pit fowl in any sense of the word; they have not a particle more of the pugnacious qualities in their make-up than such well known domesticated fowls as the Plymouth Rock, Wyandotte or Brahma. In short, they are a fowl fitted for the pit in no sense of the word, nor have they ever been or will they ever be unless their whole disposition and nature is changed.

Someone has suggested that their name be changed to "Cornish Indians," thereby relieving them entirely of the undesirable qualities that the appendage "game" suggests; but seemingly the suggested change has never met with popular favor. The general verdict seems to be that their appellation is sufficient as it is, and that under it they must either sink or swim. If it is possible, judging from their past and present, to form any estimate of their future, it certainly will not be the former. If there are any fowls that are worthy of the support of careful breeders, this breed is one of them. The time is coming when their valuable qualities of practical utility will be far more widely appreciated by farmers than at present; let that time be not in the distant future.

To one who does not admire the general features of the Game, the Cornish Indian would not appeal to their admiration. They have the clear-cut, heavy, muscular frame of the typical Game, only on an enlarged and more extensive scale; to such an extent do they have the general figure and car-

riage of the regular pit fowl that anyone having but the slightest knowledge of the characteristics of the family would have little or no difficulty in properly classing them. Personally, we somewhat admire this style of fowl, although in no sense of the word a pit-game enthusiast. It is difficult to see how that homely, muscular frame, so emblematic of the greatest strength in the least space can do aught than appeal to the eye of anyone. The plumage of the Cornish Indian is very beautiful, although not so elaborate as that of the Hamburg; its beauty is found in its wondrous simplicity rather than in the variety and combination of colors. The general growing color is bay or a reddish cast with a lacing of lustrous black, making a very plain, though handsome, dress, all very much in harmony with the sturdy, docile disposition of the fowl itself.

The standard weights of the Indian Games are as follows: Cock 9 lbs., cockerel 7½ lbs., hen 6½ lbs., and pullet 5½ lbs., so it can be seen that they compare very well with either the Plymouth Rocks or the Wyandottes in weight. They are not a large fowl, scarcely what their weights indicate, but what they lack in size they make up in the compactness of their flesh. There is no fowl, so far as our observation has extended at least, that has a flesh anything like as solid. One can not but notice the difference, either by pressing the flesh or lifting them. In hardness of the meat, the only kind of domesticated poultry that approaches them is the guinea fowl.

As egg producers, the Indian Games will rank with the average fowls. We have noted one writer, in expounding their many excellent qualities, pronounces them to be of the best, while another is equally certain that they are the poorest egg producers that can be imagined. Probably, as in most cases, the results attained were due very much to the care and labor bestowed upon them.

Too much importance can not be given to the idea of hatching early broods. Very often one hears it reported that May and the first part of June are the best months to hatch the heavy breeds, while the latter part of June and July are all right for the lighter breeds, like the Leghorns. Such an idea is contrary to our experience, and, we believe, entirely erroneous. Perhaps there are some that are able to produce winter layers and thoroughly developed fowls from stock hatched in the months indicated, but it is something that we have never been able to do. While it is very true that the majority of our stock is hatched at this time, as is that of the great majority of farmers who still continue to use the natural method, it is equally true that we have never attained the degree of success that was aimed at. One of our great difficulties has been to get "setters" when we wanted them, some time in March or April, or, perhaps, at the latest, the fore part of May.

For two or three years we have had an incubator in mind as a satisfactory way out of the difficulty. Last December we put the idea to a practical test, and ordered a two-hundred-egg machine, and a couple of substantial, and, what seemed to be, serviceable brooders. Whether or not we will succeed in making a success of the venture is something that the future alone can develop. We are acquainted with parties who have succeeded in making artificial incubation a success, and we see no reason, if a moderate amount of care is used, why we can not be equally fortunate. At any rate, we shall probably have something to say in succeeding issues about incubators and brooders in general; it is not likely that we shall be able to propound any rules that will lead to sure success, but it is quite possible that we can say something on the general topic "How NOT To Run An Incubator."

Perhaps some of the readers of this department have noticed such expressions as "standard poultry" or "standard-bred" fowls or similar expressions as they have been used from time to time by the various correspondents, and have wondered what they referred to.

Such terms are taken directly from the American Standard of Perfection, a small, octavo size, 280-page volume issued under copyright every five years, after a careful revision, by the American Poultry Association. The book is published purely in the interest of pure-bred poultry and aims to give, as far as possible, a clear and concise description of the male and female of

every breed and variety of fowl recognized by the Association as worthy of recognition. The last edition was revised at the annual meeting of the American Poultry Association held in Chicago during the World's Fair in October, 1893, and was put on the market the following year. The next edition comes out this year and will doubtless be the most satisfactory and complete of any that have ever been issued; at any rate much pains has been taken with that end in view, so much so that former efforts in this direction are cast into the shadow.

At last year's meeting of the Association a committee, composed of fifteen of its best informed poultry judges and breeders, was appointed to meet the following August, which it did, and thoroughly revise the present Standard of Perfection and prepare a report to be submitted at the next annual meeting for the approval of the Association. This report will form the basis for the new Standard, which will soon be in readiness for distribution.

A copy of this indispensable volume should be in the hands of every person who is attempting to breed pure-bred fowls. In fact, access to such a work, or at least a knowledge of its requirements, is absolutely necessary to everyone who is aiming to produce salable, pure-bred stock. We seriously question the right of any man to advertise and sell stock as pure-bred, to say nothing about the hundreds and hundreds of "standard bred" breeders, without a knowledge of the Standard, with its requirements and disqualifications as applied to his fowls. While there are many who see objections to the Standard and its applications, it still remains a fact that if they wish to raise pure-bred poultry that will be

recognized as such, either in the show room or out, they must subject themselves to its requirements, be it with pleasure or otherwise.

C. P. REYNOLDS.

### CHICKENS IN FRANCE.

(From our Paris Correspondent.)

The fat chicken industry is unknown in France, but since the latter contributes exhibits to the dead poultry show at London, note has been taken of that very profitable business. The demand for fat chickens is inexhaustible in London, and Belgium is among the leading suppliers of the market. The matter is not going to be slept upon; a French commission is apart in Belgium to make an exhaustive inquiry upon the industry, and that no doubt will open up a new opportunity for farmers' wives and daughters to earn a little extra pocket money. In Belgium, two races of poultry for breeding fat chickens are preferred; the Malines Cuckoo and the old Brockel race, peculiar since years to Eastern Flanders; the chickens of the first can be sent to market in thirteen weeks; the other in half the time, as it is a very precocious breed. Its cocks commence to crow when only three weeks old, and shows are held exclusively to reward the birds that crow ofttest in an hour. When five weeks old, being precociously large, the pullets are put up to fatten, and in fifteen days the operation is made and the birds are sent to the London market. The local breeders are associated among themselves; they have two dinners at the opening and the closing of the season, and each member brings for the banquet, a fat chicken of his own rearing.

C.

## ATTRACTIVE WOMEN.

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[EXTRACTS FROM MRS. PINKHAM'S NOTE BOOK.]

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When writing to advertisers please mention that you saw their advertisement in the Michigan Farmer.



## Farmers' Clubs.

CONDUCTED BY A. C. BIRD.

All correspondence for this department should be addressed to A. C. Bird, Highland, Mich.

### OFFICERS OF THE STATE ASSOCIATION OF FARMERS' CLUBS.

President—E. J. Cook, Owosso.  
Vice-President—Mrs. E. L. Lockwood, Petersburg.  
Secretary-Treasurer—C. M. Pierce, Elva.  
Directors—W. H. Howlett, Dansville; C. J. Phelps, Damon; F. M. Whelan, Vernon; A. L. Landon, Springport; H. Gaunt, Highland; A. P. Greene, Eaton Rapids.  
All communications relating to the organization of new clubs should be addressed to C. M. Pierce, Elva, Mich.

### THE WORK OF THE DAIRY AND FOOD COMMISSIONER.

The success of the Michigan pure food laws, as they stand at present, will depend very largely on the nature and character of the man who fills the office of commissioner. As the commissioner is appointed by each incoming governor, many vicissitudes may well be expected in the future of the pure food movement. However that may be, the vigorous policy of the present commissioner, Hon. E. O. Grosvenor, promises to permanently establish in the minds of the manufacturers and dealers that their Michigan patrons will no longer tolerate the flagrant impositions of the past few years along the lines of food adulterations and substitutes.

A comparison of the success of the work in this State with that of adjoining States reflects great credit on both the Michigan law and Mr. Grosvenor. In Wisconsin a beginning is yet to be made. In Illinois, with a law going into effect sixty days before that of this State, no tangible results have as yet been obtained, and their campaign against the oleomargarine fraud has lacked organization, method and to some extent energy. This, no doubt, is due largely to their having no commissioner, the portion of the bill providing for that official having been stricken out by the Illinois legislature before the final passage of the measure.

In this State the general status of the oleomargarine fight at present is as follows:

Licensed dealers in State, 1896-7, 341; licensed dealers in State, 1897-8, 114; licensed dealers, Upper Peninsula, 1896-7, 51; licensed dealers, Lower Peninsula, 1897-8, 63.

District South of Line Drawn East and West at Bay City.—Licensed dealers, 43; still selling colored goods, 14; not selling uncolored goods, 12; not selling at all, 17.

Of the number selling uncolored goods now, change was made to the uncolored article as follows: From beginning, 3; in November, 1; December, 1; January, 7; total, 12.

Of the number now not selling at all, sales were stopped as follows: In September, 3; October, 1; November 1; December, 1; January, 7; March, 3; April, 1; total, 17.

Prosecutions.—Number of prosecutions, 38; convicted, 6; bound over and pending in trial court, 19; pending in Police Court, 2; dismissed (Police Court, Detroit, 8; Grand Rapids, 1); total 9; nolle pros, 2.

One case pending in Supreme Court on appeal. This case was argued before the Supreme Court, April 19th, and a speedy decision asked for. It is looked for within thirty days. The general opinion is that the court will uphold the law. Cases now ready to prosecute, 145.

### REPORTS FROM LOCAL CLUBS.

#### TWO NEW CLUBS.

On March 17th a few farmers of western Osceola and eastern Lake counties met at the residence of F. C. Beeman and organized an association of fifteen members to be known as the County Line Farmers' Club. The following officers were elected: Pres., J. B. Hoyt; vice-pres., Mrs. Lottie Beeman; cor. and rec. sec., Mrs. Eva Dillon; treas., J. R. Hurst. Meetings will be held at the residences of the members the first Thursday of each month.

On April 7th another meeting was held at the home of Mr. and Mrs. Justus Berry. A paper on the April Association topic by F. C. Beeman gave points both for and against the present system. A discussion followed, the general opinion being that some changes would be an improvement in the existing order of things. Thirteen more members were added, making twenty-eight in all. More additions are expected at the next meeting, to be

held with Mr. and Mrs. Chas. Riggs, May 5th.

OSCEOLA CO. EVA DILLON, Cor. Sec.  
GREENWOOD FARMERS' CLUB.

April meeting held at the residence of State Representative Lewis O'Dett, with about eighty present. The officers of the club are: Pres., L. Bush; vice-pres., A. Lossing; rec. sec., Cora Lossing; cor. sec., S. E. Rider; treas., N. E. Lossing. J. Gibbons of Grant, discussed the question, "Does Farming Pay Under the Present System?" W. S. Hill advised the raising of more hay and the keeping of more stock so as to feed all the crops out on the farm. Hon. L. O'Dett advised co-operation among farmers. Viewing committee reported everything in good shape on the premises, especially the stock. Next meeting at the home of J. Kilgore, May 3d.

ST. CLAIR CO. S. E. RIDER, Cor. Sec.  
JACKSON COUNTY ASSOCIATION.

The county organization is to have a meeting June 3d on the Fair Grounds at Jackson, if the weather is suitable; if not, a room will be provided. At noon there will be a picnic dinner. The Executive Committee asks that every farmers' club in the county be represented by at least two delegates to consider the advisability of the county organization holding meetings during the fall and winter in different parts of the county. This question will be considered at the morning session, as there were will be a program for the afternoon session. May not the meeting be made to supply the place of the institute? Let us have suggestions along this line through the Michigan Farmer or individual correspondence.

A. AVERY, Pres. of Co. Club, Sandstone.  
JACKSON CO.

#### BURTON FARMERS' CLUB.

April meeting held at the residence of Mr. and Mrs. J. W. Hibbard. The Association topic, "Farmers' Mutual Fire Insurance Companies," was given a lengthy discussion. Mr. Hibbard believes in the system. Representative Shepard thinks there might be improvements. Advised the re-insuring of all property every five years, that insurance be annulled by allowing buildings to become vacant. T. H. Rush did not believe in re-insuring unless property changed in value. Messrs. Hibbard, Thorp and others agreed with him. The opinion was also general that the insurance on unoccupied property should hold good if payment had been made for same and the company had accepted the same. Mr. Bowles believes in determining the value of the property while it was yet intact, instead of after it was burned, as is now practiced.

SHLAWASSEE CO. S. GUILFORD, Cor. Sec.  
TYRONE FARMERS' CLUB.

Club met April 9th, with Mr. and Mrs. C. B. Marvin. A short program was rendered, after which H. C. Donaldson gave an excellent paper on the different lines of work of the farmers' clubs.

Is the present management of our country roads what it should be for the benefit of the farmer? and, How can we avoid the taking of excessive toll by millers? will be the questions discussed at the next meeting.

LIVINGSTON CO. A. W. SMITH, Cor. Sec.  
LONG LAKE FARMERS' CLUB.

The club was entertained April 7th at the residence of R. H. Tenny, with about ninety present. In a paper on "How may we maintain the fertility of our soil?" John Newman thought, if studied from a scientific standpoint, would necessitate the analysis of plants, soils and fertilizers. This he thought would be too tedious. His plan was a rotation of crops, with clover sod and plenty of barnyard manure. "The bright side of farm life from a woman's point of view," by Mrs. Walter Slayter, followed. She referred to the butterfly, often almost within our grasp, yet eluding our efforts, is still seen in the distance. So with happiness. It often seems to be, but is not. She said that if we would look carefully we would see more of the thorns, weeds and rugged rocks in city life than in the country. Country life, with care and effort, can be made more healthy and free, which is the key note to happiness.

The next paper was by R. H. Tenny, on "How may the farmer oblige the miller to take only the toll the law allows?" (This most excellent and practical paper will appear in full in this department at an early date.—Ed.) Next meeting with Mr. and Mrs. J. B. Traphagan, May 5th.

GENESSEE CO. S. A. SOMERS, Cor. Sec.  
SANDSTONE AND BLACKMAN FARMERS' CLUB.

April meeting with Mr. and Mrs. Wm. Milligan. A goodly number were present. It is the practice of our club

for the members to bring camp stools if they have them, and the diners are eaten from sewing tables, also provided by the members. Each lady looks after her own table and provides dishes for the same. After refreshments each one has only her own to attend to and much confusion is thus avoided, and the entertaining family greatly relieved.

The Association question was opened by E. A. Avery. He urged better attendance at the annual school meetings of those interested in school work, visiting of schools by the parents and school officers, less fault finding before the teacher has had a chance to demonstrate his or her worth, and less fault finding at all times before the children who are pupils. Pupils should be punctual and attend regularly. Mr. Milligan thought the township unit system both cheaper and better. The source from which we get a large per cent of our teachers does not supply the right material. The early training and education of many teachers of this kind has not been right to fit them for teachers in the rural schools. Mr. Helmer thought pupils were apt to progress in their studies according to the interest of the parents in their school work. Good discipline at home is a necessary accompaniment to well governed schools. Parents should not condemn the teacher on the evidence of their children alone. Good teachers should be kept. A few dollars saved by changing is generally a poor way of saving money. Do not need higher grades in our school, but should have more practical things taught, things useful in everyday life. Rural school training is one great cause of our sons leaving the farm. Teachers should be acquainted with rural life and believe in it.

JACKSON CO. A. AVERY, Cor. Sec.  
GRASS LAKE FARMERS' CLUB.

Mr. and Mrs. A. Brower entertained the April meeting. A paper by Mrs. Frank Stone, now of Dakota, but once a member of this club, was read by Mrs. David Rowe, subject, "Shall Domestic Science Be Taught in Our Public Schools?" A lively discussion followed. Mr. Dwell thinks we are improving our schools at the wrong end. Should begin with the district schools, for the need of improvement is greater there. Mrs. Lee thinks it impracticable to introduce domestic science in our district schools, as it would require a re-adjustment of the grades. She thought the girls from the poorer classes far the better fitted for house-keeping. Mr. Bradley: We are in the rut and it will be difficult to get out. Must improve by degrees. Might have a lecture on the subject once a week in the district schools. Mr. Smith advised employing a learned lecturer on the subject to address the ladies at our club meetings. Doubtless the examples of culinary art brought to the club suggested the thought. Mr. Preston thought it would be superfluous to introduce the science in the country schools. The pupils can get that at home. Clay Taylor: We are too practical already. A little more poetry will not hurt us. Better get along with poorly cooked food than to go without the higher education. Mr. Raymond: If you would keep a man good natured feed him well. It will not be necessary to neglect higher education for domestic science, however. Give our children the best along educational lines from the beginning. The appetite once created will not be lost. Mr. Crafts: Not enough attention is given to our district schools; teachers are not proficient; so far as the balanced ration is concerned his rule would be to eat what one likes and can enjoy. To fit one for this ration get up early in the morning and go to work and you will have a good appetite. Go to bed early and you will be all right. Mrs. Rowe says that the balanced ration theory is all right, but that the difficulty is to educate our people's appetites so they will agree to it.

The question, "In letting a farm what is a just proportion to receive, in shares, money or per acre?" was then discussed. Frank Dwell believed that the half system, tenant and owner each furnishing half and getting half, is practically fair. Farms should not be let for money rent, as the tenant will generally run the farm to death. Mr. Updyke thinks money rent the best way and that over two dollars an acre is too much. Mr. Mount advised renting by fields, but Mr. Raymond objected on the ground that one-half the fertility would thus leave the farm. Unsuccessful farming more often comes from mismanagement than from poor soil.

The resolutions received from the

Liberty Farmers' Club, demanding equal taxation of all property on cash value, asking the legislature to pass a law securing the same, expressing the determination not to vote for an opponent of this measure at any succeeding election and asking the co-operation of other like organizations, were adopted.

Next meeting with Mr. and Mrs. LeRoy Brower.

MRS. GEO. FERGUSON, Cor. Sec.  
JACKSON CO.

#### SOUTH LEONI FARMERS' CLUB.

April meeting entertained by Mr. and Mrs. J. Z. Ballard. About sixty were present and great interest manifested. A. W. Green read an instructive paper on horticulture, entitled "The First Fruits of the Season." After discussion it was resolved that postal savings banks should be instituted in this country. The question, "Is it wise to limit the time of office of supervisors?" was discussed, with the prevailing opinion that there should be no limit. The "general purpose" versus the "dairy" cow again took the field, with the odds in favor of the dairy cow. The affirmative of "Can we feed quality into milk?" received one or two supporters, the majority, however, believing that feed does not affect quality but that it does quantity.

The proposition to adjourn during the summer months did not meet with approval, thus proving that our interest does not flag.

JACKSON CO. MRS. A. E. CLEMENT, Sec'y.  
GREEN OAK FARMERS' CLUB.

A very interesting and instructive meeting was held at the home of Mr. and Mrs. M. Fields, April 21st. Mrs. Spring read a selection on the Association topic which brought out some good ideas. Mrs. G. Musch thinks freetext books would be a great help to our schools. Also that teachers should not push children too fast. See to it that they understand each step as they go. Miss Hunter says that teachers in our country schools should not be required to teach beyond the eighth grade, as they have no time for more work if properly done. Mr. Fields would have greater care taken to hire teachers of good morals. Others think parents should visit schools more than they do.

Next meet with Mr. and Mrs. A. Marshall, May 19th. The Association topic, "Dairy and Food Laws, and the Farmer's Relation Thereto," will be discussed.

MRS. LEM POTTER, Cor. Sec.  
LIVINGSTON CO.

#### ELKLAND AND GRANT FARMERS' CLUB.

Met at the home of Fred Harrison the evening of April 21st. The Association topic was introduced in a paper by Mr. Hall. This was followed by a general discussion in which most of those present expressed their views. Mr. Hall thought we should have better teachers and pay them more. Teaching would then become a profession, instead of a stepping stone to something else. He strongly advocated the township unit system and a uniformity of text books. Books should be more practical than at present. There are too many rules and not enough practical knowledge. The uniform text book law passed at the last session of the Legislature lost its force because of being made elective with the several districts, whether they should adopt it or not. The majority agreed with Mr. Hall, except on the township unit system, which they thought was concentrating the power too much to the benefit of the villages at the expense of the rural school districts. John Marshall read a paper on "Spring Seeding," which was pretty thoroughly discussed. Next meeting at John Marshall's, May 19th.

TUSCULA CO. ARCH. MARSHALL, Sec.  
CENTRAL FARMERS' CLUB.

Our April meeting, held at the residence of Mr. and Mrs. Alba Harris, was well attended. Association topic was opened by having a paper read, written by Francis Burns, entitled "The Franchise of Women in the Public Schools." D. G. Locke said that last September one woman in his district established the precedent of using their rightful franchise. He thought this year more would attend and that it would be a benefit. R. K. Smith considered the placing a large proportion of lady teachers in the schools a great improvement. Frank Bolinger believed in the expulsion of ungovernable pupils. H. W. Brown thought our schools too much under the management of college professors who plan work for a collegiate course rather than for the practical duties of life.

To economize time the company divided and the gentlemen discussed the sugar beet industry in one room, while in an adjoining room the ladies talked



of the different uses of muslin. In answer to a question, Mrs. Boyd Redner said to rid a carpet of moths use pulverized alum and oil of cedar.

May meeting the 11th at the home of Mr. and Mrs. E. C. Reed, Ionia Co. D. G. L. Cor. Sec. SUMMERFIELD AND DEERFIELD FARMERS' CLUB.

March meeting at the residence of J. L. Howard, the 17th. Question, "What products of the farm, with the present outlook, should be given first place?" Leader, L. Howard. Decided that mixed farming is safest. After discussing the "Food and Dairy Commission," the following resolution was passed unanimously: That we will support the Pure Food and Dairy Commissioner by our voice, vote and money.

Monroe Co. H. G. MORSE, Sec'y. EXETER FARMERS' CLUB.

April meeting held with Mr. and Mrs. Steward. Chief topic for discussion, "Which is more profitable, to sell our milk at the factory or manufacture it at home?" All who took part thought it more profitable to keep it at home. One advantage urged in favor of the factories was that it took a lot of hard work out of the house in the way of churning and taking care of the milk. Next meeting May 12th, at the residence of Mr. and Mrs. J. J. Herkimer.

Monroe Co. MRS. B. F. KNAUGS, Cor. Sec. CLYDE AND GRANT FARMERS' CLUB.

Club entertained, April 27th, by Dr. and Mrs. Stevenson. A good program was rendered. Especially worthy of mention were a reading by Rev. Nanknois, "Selling the Farm;" "Lochinvar," by Dr. Stevenson, and "Simple Living and High Thinking," by Mrs. Alice McKay, the practical living and working of Thoreau being the subject of illustration. Ex-President David Beard presented a plan for yearly programs for consideration by the club, with a view to improved organization and work. The matter will be more fully discussed at the next meeting. The question box produced the following: Which is the best for corn, deep or shallow planting? Early planting deeper than late, from a gardener's point of view, said Rev. Nanknois. David Beard prefers shallow planting. J. W. Gardner's idea is that corn requires a deep and well cultivated seed bed, with one and one-half inches depth of planting, followed by shallow cultivation. How can our boys be saved from cigarettes and dram shops? Mrs. Henry Kingsley: By precept and example; persuasive and all parental authority. Mrs. Alice McKay: Early inculcate a knowledge of evil effects, then develop will power in all home training. Mrs. J. C. Levegood: Teach the boy effects along physical lines, keeping strictly within the truth, and he will shun them as poison. For instance, what boy would become a cigarette fiend if he were taught that by so doing he could never raise a mustache?

Question at next meeting: Resolved, That success depends more on our own efforts than upon circumstances. Opened by a paper by Rev. Nanknois on "What Is Success?" Meeting, May 25th, with Mr. and Mrs. Edward Phillips.

St. Clair Co. MRS. O. McKAY, Cor. Sec.

#### FOOD ADULTERATIONS.

BY HON. E. O. GROSVENOR, STATE DAIRY AND FOOD COMMISSIONER.

The people of this country are beginning to awaken to the importance of protecting the public against fraud or deception in the manufacture and sale of articles of food. From 1871 to 1897 laws have been passed at nearly every session of the Legislature regulating the same, but not until 1895 were they anything but dead letters. An act passed in 1893 provided for a Dairy and Food Commissioner with authority to enforce the laws; but as only \$1,000 was appropriated for carrying on the work the commissioner could practically do nothing except draw his salary. In 1895 the general food law known as the "Redfern Act" was passed with an annual appropriation of \$10,000. Under this act as amended by the Legislature in 1897 giving an increase of \$8,000 annually the department is now working. Out of all the states in the Union, fifteen have general food laws, Wisconsin being the last to enact such a statute to take effect January 1, 1898. Nearly all the countries of Europe have for years been living under very stringent food laws. Under the law preventing adulterations, the English are living longer and better than we. Dr. Foster stated before the English Medical Society lately that a man's natural life-time is

100 years, and that all could live that long if they met with no accident and lived properly. From Dr. Farr's observation of the march through life of 1,000,000 children, he found that the English were living longer than formerly, as there had been a gain of two and one-half years in the average life of the people. He claims that the largest amount of sickness is due to insufficient and impure food, and that the first essential to life is pure food.

#### PROHIBITED ARTICLES.

The laws of this State forbid making or dealing in:

1. Generally any article which has mixed with it or abstracted from it, or substituted for it any ingredient which lowers its quality, strength or purity, or is injurious; or if it is an imitation of, or sold under the name of another article, or is falsely branded; or has been colored, coated, polished or powdered to conceal inferiority, or to make it appear of greater value; or in which there is fraud or deception. Exceptions under special acts, if labeled in compliance therewith, are as follows: Buckwheat flour, jelly, lard, coffee, syrup and molasses.

2. Decomposed or tainted animal or vegetable substances, or products of deceased animals.

3. Milk adulterated or from deceased cows, or from which any part of cream has been taken, unless can from which it is sold is conspicuously labeled "Skimmed Milk," or from cows fed upon the refuse of a distillery or of a large brewery, garbage or swill.

4. Canned goods unless labeled with name and address of packer, and marked "Soaked or Bleached" if so.

5. Vinegar, artificially colored, or containing drugs or mineral acids, or foreign substances; or cider vinegar containing less than 1 1/4 per cent of cider vinegar solids; or vinegar not branded "Distilled or Fermented" as it may be.

6. Oleomargarine unless free from coloration or ingredient that causes it to look like butter, and unless dealer, keeper of hotel, boarding house or eating place put up signs of "Oleomargarine Sold or Used Here" as law requires.

7. Wines and liquors, unless properly branded and free from any substances not normal or healthful, or which may be deleterious or detrimental to health when such liquors are used as a beverage.

8. Recognized mixtures of compounds, unless each package bear the name and address of the manufacturer and is labeled under its own distinctive name and in a manner to plainly and correctly show that it is a mixture or compound.

Penalties vary from \$50 to \$1,000 fine, and thirty days to three years' imprisonment.

The State is very much in need of better and more effective laws relative to the care of dairy herds and the sale of milk and milk products. It should provide for the appointment of an attorney to assist in the prosecutions of all cases, as the food laws are very complicated within themselves, and need someone to assist in nearly all trials, who has made a special study of them. Amendments are very much needed to several of the acts to make them effective.

Last year an invitation was extended to all the Dairy and Food Commissioners of the State to meet at Detroit, Michigan, August 25, 26 and 27 for the purpose of forming an association, the effect of which was: 1. To promote and foster such legislation as will tend to protect public health and prevent deception in the manufacture, sale and use of dairy food and other products intended for human consumption. 2. To promote uniformity in legislation and rulings relative to dairy food products. 3. To enhance the efficiency of dairy and food laws by developing an acquaintance tending to harmonize the interests represented by those charged with the enforcement of such State laws. Ten states having food laws responded to the call, as follows: New York, Ohio, Pennsylvania, Iowa, Minnesota, Colorado, Connecticut, Massachusetts, Wisconsin and Michigan. There being present including commissioners, deputy commissioners, chemists and inspectors the total number of 21. An association was formed under the name "The National Association of State Dairy and Food Departments," a code of by-laws adopted, officers elected and committees appointed. Among the officers elected were the Hon. J. E. Blackburn, commissioner of Ohio, for president, and the Hon. Elliot O. Grosvenor of Michigan for secretary. We believe this association

will be of great assistance in bringing about a uniformity of State laws and in having such national laws enacted that will regulate the manufacture and sale of food products from one state of the Union to another, which cannot otherwise be controlled. I do not wish to be understood as criticising our State Legislature, for at their last session they did more for this department than could reasonably be expected, from what little knowledge they had of the two previous years' work. The work was effective for just that particular time, but the people knew little of it. Few complaints were made, therefore, but little newspaper advertising. Generally speaking, I believe the legislators all meant well, but not over one in fifty of them have more than a vague idea of the construction of the food laws of this State, nor can anyone have unless they devote special study to them alone. For this reason some special acts are passed relative to food products that lessen, while others are killed that would strengthen the powers of what is known upon our statute books as the general act to prohibit and prevent adulteration, fraud and deception in the manufacture and sale of food and drink. This was true of our last Legislature, and to-day, not only the farmer, but the consumer, is getting the worst of it. I have reference to the law permitting adulteration of buckwheat flour, and the killing of the act regulating the manufacture and sale of baking powders. No doubt the Legislature did what it thought would be for the best interests of all, but certainly a great mistake was made in not passing the baking powder bill. I know of no other article of all the food products sold upon our market to-day that is so much of a fraud and deception as baking powders. Had this bill been passed, thousands of dollars would have been saved to the consumer, not saying anything regarding the deleterious effects brought on through the use of many of these powders upon those troubled with weak stomachs, especially small children.

#### CHARACTER OF FOOD ADULTERATIONS.

Adulterations are of two kinds—injurious and non-injurious to health. Adulterations non-injurious to health may be subdivided again into two classes, viz: Those that are simple debasements of well known dietary articles of which a standard exists by which to test them, such as flour, lard, vinegar, spices, condiments, etc. The second division includes such articles as baking powders, flavoring extracts, etc., and presents special difficulties to the investigator from the lack of any such standard and of any such fixed rules to govern the formulas. The most of these adulterations belong to the second class, namely, the non-injurious to health. The adulterations of many of our food products result in cheapening the products of the farm, thus lessening the profits of the husbandman and robbing both consumer and producer. It must not be forgotten, too, that even though adulterated with matter not positively injurious to health, such foods cannot be as nutritious and wholesome as the pure article. Our export trade, of which so large a proportion consists of agricultural products, is also suffering from the same cause, and here again a heavy burden is laid upon our farmers. With the total of American exports annually in the neighborhood of \$700,000,000, of which 73 per cent consists of agricultural products, the force of these observations is at once apparent.

Recent inquiry and investigation into food adulterations brought out a surprising fact—that men standing well commercially, who would scorn apparently to do a dishonest action, frequently misbrand their productions, selling articles of food branded as pure which they know to be impure. This fact was brought out during the lard

investigation, when the heads of wealthy and reputable firms unhesitatingly testified to the fact that they sold compound articles of food branded pure.

#### COST OF ADULTERATIONS.

The total value of the food supply consumed in the United States according to the United States Department of Agriculture, is, at a low estimate \$4,500,000,000. The department estimates that two per cent of this is adulterated, amounting to \$90,000,000, of which ninety per cent is of a character non-prejudicial to health: (This is exclusive of meats and milk.) Accepted for sake of argument this statement and the result shows that there is \$9,000,000 worth of poisonous food products put annually on the country, and \$81,000,000 of fraudulent products. This immense sum of money is simply stolen from the people each year by men who coin fortunes by cheating the consumers. Information acquired by this department during the past few years leads me to the conclusion that the estimate made by the government is too low for Michigan. It was less than two months ago I was informed by one of the leading wholesale grocers of this State that before the food laws came into effect ninety per cent of all the goods he sold were adulterated. On the basis that the food supply consumed in the United States is \$4,500,000,000, Michigan's proportion, according to her population, would be about 1-30 or \$150,000,000. The very lowest estimate possible I would dare place upon this as being adulterated prior to 1895, would be 15 per cent or \$22,500,000, and I am confident that 25 per cent would be much nearer the mark.

THE EXTENT OF ADULTERATIONS. Adulterations injurious to health exist to an extent that threatens every

(Continued on page 380.)

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species of food supply. While these adulterations are mainly commercial frauds practiced by unscrupulous manufacturers, manipulators and dealers for the purpose of deceiving their customers and adding to their gains, yet there are also, to an alarming extent, poisonous adulterations that have, in many cases, not only impaired the health of the consumer, but frequently caused death. The people in general have no idea of the extent to which this damaging imposition is practiced: from the cheapest and most simple article of diet to the most expensive the art of the manipulator has been applied.

The close competition in the commercial world and the increasing number of consumers in our cities, increase the temptation to adulterate food products; and as the producers of all the foods consumed are really the farmers, the question of food adulteration comes home to them through their pockets with great force.

When the farmer's hog has to compete with cotton seed oil and paraffine, it is expected that the farmer should "squel"; and when his cow has to compete with both the hog and steer in the production of butter, it is legitimate that he should "kick."

Several causes have combined to make this condition of affairs possible in the past. 1. The universal competition of manufacturers all over the country owing to the facility, cheapness and rapidity of transportation. 2. The ever growing demand of the consumer to obtain his food products, partially or wholly prepared for the table. 3. The perverted use of scientific discoveries to the preparation of counterfeits or imitations of well known articles of food. The highest scientific skill has been employed for this purpose, and the result of this employment of scientific skill has been products which so closely resemble the genuine that the highest scientific skill is again required to distinguish between them, thus verifying the old adage: "It takes an old rogue to be a jail keeper." It is somewhat gratifying, to know, however, that the most of our manufacturers of food supplies are conscientious enough to abstain from poisoning, even if they do steal.

Under our statutes an article is deemed to be adulterated, which I have grouped as follows:

1. If any substance or substances have been mixed with it, or if any inferior or cheaper substance or substances have been substituted wholly or in part for it, or if any valuable ingredient has been wholly or in part abstracted from it so as to effect its quality, strength or purity e. g., water to milk; corn starch to mustard; alum, plaster paris and starch to cream tartar; rice, corn, buckwheat flour, ground olive stones, etc., to pepper; corn meal and gypsum to ginger; glucose to honey and maple syrup; chicory, peas, etc., to ground or broken coffee; foreign fats to butter or lard; cotton seed oil to olive oil; the skimming of milk; removing the butter fat in the manufacture of cheese; the extraction of ethereal oils from cloves, cinnamon, etc.

2. If it is an imitation of or sold under the name of another article, e. g., oleomargarine for natural butter; compound lard manufactured out of tallow and cotton seed oil, for genuine lard; distilled vinegar, made from grains and colored with burnt sugar, for cider vinegar; alum baking powder for cream tartar baking powder; artificial flavoring extracts, such as strawberry, raspberry, pineapple, banana, etc., made of ethers for true extracts; imitation jelly for pure jelly, etc.

3. If it consists wholly or in part of a diseased, decomposed, putrid, infected, tainted or rotten animal or vegetable substance or article, whether manufactured or not, or, in case of milk, if it is the product of a diseased animal.

4. If it is colored, coated, polished or powdered whereby damage or inferiority is concealed, or if by any means it is made to appear better or of greater value than it really is, "butter excepted," e. g., the use of turmeric or coal tar color in coloring dry banana, etc., made of ethers for true fee; the coloring of sugars, etc.

5. If it contains any added substance or ingredient which is poisonous or injurious to health, e. g., preservatives in milk to make it keep sweet, salicylic acids in canned fruits and vegetables of all kinds; in preserves, jams, jellies and catsups; in wines, beers, etc.

(Continued Next Week.)

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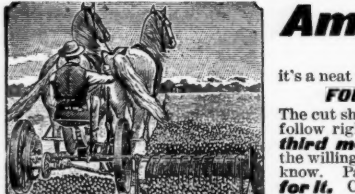
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